

Extending Russia

Competing from Advantageous Ground

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Preface

This report documents research and analysis conducted as part of the RAND Corporation research project Extending Russia: Competing from Advantageous Ground, sponsored by the Army Quadrennial Defense Review Office, Office of the Deputy Chief of Staff G-8, Headquarters, Department of the Army. The purpose of the project was to examine a range of possible means to extend Russia. By this, we mean nonviolent measures that could stress Russia's military or economy or the regime's political standing at home and abroad. The steps we posit would not have either defense or deterrence as their prime purpose, although they might contribute to both. Rather, these steps are conceived of as measures that would lead Russia to compete in domains or regions where the United States has a competitive advantage, causing Russia to overextend itself militarily or economically or causing the regime to lose domestic and/or international prestige and influence. This report deliberately covers a wide range of military, economic, and political policy options. Its recommendations are directly relevant to everything from military modernization and force posture to economic sanctions and diplomacy; consequently, it speaks to all the military services, other parts of U.S. government that have a hand in foreign policy, and the broader foreign and defense policy audience.

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Summary

The maxim that "Russia is never so strong nor so weak as it appears" remains as true in the current century as it was in the 19th and 20th.[1] In some respects, contemporary Russia is a country in stagnation. Its economy is dependent on natural resource exports, so falling oil and gas prices have caused a significant drop in the living standards of many Russian citizens. Economic sanctions have further contributed to this decline. Russian politics is increasingly authoritarian, with no viable political alternative to the highly personalized rule of President Vladimir Putin. Militarily and politically, the Russian Federation wields much less global influence than the Soviet Union did during the Cold War, a condition Putin is trying to change. In addition to these real vulnerabilities, Russia also suffers from deep-seated anxieties about the possibility of Western-inspired regime change, loss of great-power status, and even military attack.

Yet these problems belie the fact that Russia is an extraordinarily powerful country that, despite its systemic weaknesses, manages to be a peer competitor of the United States in some key domains. While not the superpower that the Soviet Union was, Russia has gained economic strength and international weight under Putin and now boasts much greater military capabilities than any country with similar defense spending—to such a degree that it can exert its influence over immediate neighbors. Moreover, while still conventionally inferior to the United States and its North Atlantic Treaty Organization (NATO)

[1] The origin of this quote is unclear, but it has been around for hundreds of years. See Mark N. Katz, "Policy Watch: Is Russia Strong or Weak?" UPI, July 10, 2006.

allies when they are judged as a whole, Russia can and does threaten the United States and its allies through other means—short of conventional conflict.

Recognizing that some level of competition with Russia is inevitable, this report seeks to define areas where the United States can do so to its advantage. We examine a range of nonviolent measures that could exploit Russia's actual vulnerabilities and anxieties as a way of stressing Russia's military and economy and the regime's political standing at home and abroad. The steps we examine would not have either defense or deterrence as their prime purpose, although they might contribute to both. Rather, these steps are conceived of as elements in a campaign designed to unbalance the adversary, leading Russia to compete in domains or regions where the United States has a competitive advantage, and causing Russia to overextend itself militarily or economically or causing the regime to lose domestic and/or international prestige and influence.

Economic Policies

Of all the measures we examined, expanding U.S. energy production and imposing trade and financial sanctions on Russia seem most likely to further stress the Russian economy, government budget, and defense spending. Russia needs oil export revenues to maintain its government operations, including military activities abroad and the provision of social services and pensions at home. Limits to oil revenues will lead Russia to make difficult choices beyond those it has had to make already. Global oil prices and production are beyond the full control of a single country, but the United States can adopt policies that expand world supply and thus depress global prices, thereby limiting Russian revenue.

Imposing tougher sanctions is also likely to degrade the Russian economy, and could do so to a greater extent and more quickly than maintaining low oil prices, provided the sanctions are comprehensive and multilateral. Effectiveness of this approach will depend on the willingness of other countries to join in such a process. Furthermore, sanctions come with substantial costs and considerable risks and will

only have impact if widely adopted. In contrast, maximizing U.S. oil production entails little cost or risk, might produce second-order benefits for the U.S. economy, and does not need multilateral endorsement.

Increasing Europe's ability to import gas from suppliers other than Russia presents a third, longer-term, and more expensive effort that could economically extend Russia and buffer Europe against Russian energy coercion. Europe is slowly moving in this direction by building regasification plants for liquefied natural gas. To truly be effective, this measure would need global natural gas markets to become more flexible.

In a similarly far-reaching scenario, encouraging the emigration from Russia of skilled labor and well-educated youth could help the United States and hurt Russia, but any effects, both positive for the United States and negative for Russia, would be difficult to notice except over a very long period.

Russia's poor economic policies have hampered growth and are likely to continue doing so. Although some areas have improved, such as the cleanup of the banking sector, Russian economic policy throughout the late 2000s and into the 2010s was often counterproductive. Doing nothing, although not an active measure on the part of the United States, would also let the Russian government continue its poor regulatory regime, its state control, and its wasteful investments, all of which would continue to limit the country's economic weight and military potential.

Ideological and Informational Measures

Russia's long-standing concern about the vulnerability of its people to *information threats*—particularly fear of what the Russians view as Western propaganda—and the Russian government's demonstrated propensity to intervene in public discourse when it feels threatened have strengthened the country's resistance to foreign influence operations. Traditional media in Russia are, with rare exceptions, under secure pro-regime control, leaving the internet as the primary means of reaching the population directly. Moreover, Russian regime narratives predispose much of the population to be skeptical of anti-regime messages coming from abroad.

Despite these difficulties, limited effects on Russian domestic stability and international image could be achieved by a Western information campaign that helped to undermine key aspects of the regime's claim to legitimacy and worked in tandem with preexisting regime vulnerabilities on such issues as corruption. However, such a strategy would be risky. Western involvement in Russian politics in this manner could give the regime both cover and an incentive to institute a violent crackdown on domestic anti-regime groups and activists. It might also lead Moscow to expand its already considerable efforts to destabilize Western democratic systems. This approach might initiate a second ideological Cold War between Russia and the West, from which de-escalation could be difficult.

Nevertheless, recent Russian efforts to subvert Western democracies provide a powerful rationale for some sort of counter campaign to serve as retribution, reestablish a degree of deterrence in this domain to the extent that is possible, and create the basis for a mutual stand-down in such activities. Since relations between Russia and the West plummeted after the 2014 invasion of Crimea, Russia has undertaken a series of highly aggressive information and influence operations against Western democracies. The effectiveness of these operations has varied substantially, and most steps that states can take to limit their vulnerability to Russia's actions involve domestic policies and political choices that are outside the scope of this report. Nonetheless, Western nations have a clear incentive to try to deter Russia from repeating or even expanding such efforts in the future. Economic sanctions are one such path, along which the U.S. Congress has already embarked. Another approach is to establish deterrence, or even achieve an agreed stand-down in such activities by developing a capacity to respond in kind to Russian subversion, and, if necessary, demonstrating the willingness to employ it.

Geopolitical Measures

Another way to extend Russia is to make its foreign commitments costlier, but this turns out to be quite risky for the United States and its allies and partners. Unlike the Soviet Union, Russia is not overextended geo-

graphically. Other than in Syria, its foreign commitments in Ukraine and the Caucasus are relatively compact, contiguous to Russia, and in locales where at least some of the local population is friendly and geography provides Russia with military advantages. The measures examined under this heading tend to risk counter-escalation by Russia to which the United States might be hard-pressed to respond effectively.

The Ukrainian military already is bleeding Russia in the Donbass region (and vice versa). Providing more U.S. military equipment and advice could lead Russia to increase its direct involvement in the conflict and the price it pays for it. Russia might respond by mounting a new offensive and seizing more Ukrainian territory. While this might increase Russia's costs, it would also represent a setback for the United States, as well as for Ukraine.

The United States will need to decide how to proceed in Syria once the Islamic State is expelled from its remaining territorial enclaves in Raqqa and the lower Euphrates River valley. One option is to establish a significant U.S. protected zone in the east of the country. Washington might also resume U.S. assistance to the remaining opposition forces in the west, which the Donald Trump administration has reportedly discontinued. It will be difficult to disentangle the moderates from the extremist al Qaeda–linked opposition elements, however, and any U.S.-supported forces in country would face attacks from the Syrian government and from Iranian-backed militia forces even if Russia kept its distance. Over the longer term, this could prove costlier to the United States than to Russia. Prolonging the Syrian civil war also imposes considerable costs for America's regional and European allies, not to mention the Syrian people themselves.

In the Caucasus, the United States has fewer options to extend Russia. Russia enjoys even greater geographic advantages there, making it considerably more expensive, for instance, for the United States to defend Georgia than for Russia to threaten it. Likewise, the United States is not in a strong position to challenge Russian influence in Central Asia for similar geographic reasons. Efforts might be made to persuade Moldova to align more closely with the West and to expel the small Russian peacekeeping force located in the Russian-speaking enclave within that country. This would actually save Russia money, even as it forced a humiliat-

ing withdrawal. Belarus is Russia's only real ally. Successfully promoting regime change and altering the country's orientation westward would be a real blow to Moscow. But the prospects of a so-called color revolution in Minsk are poor, and should one became imminent, Russia might well intervene militarily to prevent it. Again, this would extend Russia but generally be regarded as a setback for the United States.

Most of these measures—whether in Europe or the Middle East—risk provoking Russian reaction that could impose large military costs on U.S. allies and large political costs on the United States itself. Increasing military advice and arms supplies to Ukraine is the most feasible of these options with the largest impact, but any such initiative would have to be calibrated very carefully to avoid a widely expanded conflict.

Air and Space Measures

Air and space are particularly attractive domains for implementing cost-imposing strategies against Russia. However, not all approaches for doing so offer sufficient benefits or probabilities of success to justify the associated costs and risks for the United States.

The best cost-imposing strategies are those that would incorporate a combination of approaches that are affordable for the United States, do not create excessive risks of instability, and generate enough anxiety in Moscow that Russia would be prompted to invest in costly defensive (or counteroffensive) measures. Strong contenders for a cost-imposing strategy against Russia include investments in long-range cruise missiles, long-range anti-radiation missiles, and—if they are affordable enough to be produced in high numbers—autonomous or remotely piloted aircraft. All of these moves would generate pressure on Moscow to increase the range and capabilities of the ground and air elements of Russia's integrated air defense systems, which would be costly. Investments in more-sophisticated electronic warfare capabilities would complement these options but might not trigger Russian investments to counter them if Russian leaders did not know that U.S. electronic warfare systems had been upgraded. Touting prospective breakthroughs in critical military technologies might also spur a Russian response

even if the breakthrough is never achieved. Russian anxieties regarding the foregoing options could be further heightened by periodic bomber deployments to European and Asian bases, along with the deployment of additional tactical nuclear weapons to Europe and Asia.

Options that do not seem to be good candidates for a cost-imposing strategy include posturing fighters close to Russia; reposturing or deploying more ballistic missile defense; and developing such exotic weapons as conventional intercontinental ballistic missiles (such as Prompt Global Strike), space-based weapons, or spaceplanes. These options could be very expensive for the United States, potentially destabilizing, or both. Moreover, Moscow could counter some of them relatively easily with modest investments in additional capabilities. Breaking out of the strategic nuclear arms control regime would appear to be the worst measure of all, given the costs and risks such a move would entail, including a commensurate buildup of Chinese capabilities.

Finally, although developing small satellites and making other investments in the U.S. orbital infrastructure probably would not be an effective cost-imposing strategy against Russia, such investments might be warranted to improve the operational resilience of U.S. national security space capabilities.

Maritime Measures

There are several measures the United States and its allies could take to encourage Russia to divert defense resources into the maritime domain, an area where the United States already possesses key comparative advantages.

More-aggressive U.S. and allied patrolling near Russian naval base areas could cause Russia to adopt expensive countermeasures. With limited access to the open sea, Russia would be sensitive to threats posed to these areas—particularly the Arctic, home of its nuclear ballistic missile submarine fleet, and the Baltic and Black Seas.

Anti-submarine warfare is a particularly difficult and expensive mission. Frequently operating U.S. and allied submarines in those waters and making their presence evident periodically could lead Russia to

invest more in this demanding field without the prospect of commensurate improvement in capability.

Similarly, deploying land-based or air-launched anti-ship cruise missiles on NATO's Black Sea coast could compel Russia to strengthen defenses of its Crimean bases, limit its navy's ability to operate in the Black Sea, and thus diminish the utility of its Crimean conquest. Romania would likely be the most willing candidate for such basing.

The United States could also develop missiles that could suppress Russian air defenses (e.g., a submarine-launched, loitering anti-radiation missile) or attack-and-destroy armored vehicles (e.g., a submarine-launched version of the Army Tactical Missile System). Either weapon could change Russian planning assumptions. Russian military planners would then face the prospect of accepting additional risk in its military planning, increasing its forces involved in a given contingency, or investing in its own efforts at anti-submarine warfare to blunt this U.S. development program.

The principal limiting factor in most of these maritime strategies is that Russia could simply choose not to compete. Blue-water navies are expensive, and Russia, primarily a land power, might not want to invest significant resources into challenging the United States and NATO for command of even nearby seas. Moreover, from the U.S. standpoint, while maritime strategies have limited risks of escalation with Russia, they could impose a significant opportunity cost, possibly causing the United States to shift limited assets away from the Pacific and China.

Land and Multidomain Measures

Compared with the United States or even the NATO allies in aggregate, Russia spends far less on its land forces—but geography gives it notable advantages. In general, it is much costlier for the United States to position ground forces close to Russia's borders than it is for Russia to undertake countervailing buildups. Such measures can assure U.S. friends and allies, encouraging their self-defense investments and strengthening their resolve in the face of Russian coercion. While such

deployments might be important for deterrence, they might not work as part of a cost-imposing strategy. Continuing to press NATO allies to improve the capabilities of their own forces could lead to a more productive use of Western resources.

Returning significant U.S. ground forces to Europe would make them more rapidly available for European contingencies (and some non-European ones). However, the closer to the Russian border these forces are positioned, the more likely they are to raise tension and the more difficult it could be to redeploy them elsewhere. Locations in Central Europe might therefore be preferable.

Larger, more-frequent and shorter-notice NATO exercises could enhance deterrence by demonstrating Alliance resolve and reinforcement capabilities and might prompt shifts in Russian defense allocations. They would, however, become disproportionately expensive if they involved deployment of significant U.S. ground forces based in the contiguous United States, particularly those involving heavy equipment.

Ending the Intermediate-Range Nuclear Forces (INF) Treaty regime might be advantageous vis-à-vis China, which is not bound by the agreement, but would be of little added benefit against Russia, given that U.S. sea- and air-based cruise missiles, which are unconstrained, can cover the same targets while remaining less vulnerable to Russian counterbattery fire. Moving to develop U.S. ground-based intermediate-range missiles might lead Russia to resume adherence to the regime, but any effort to actually deploy such systems in Europe would be politically challenging, as it was in the 1980s, and risk worsening strategic stability on the continent.

Incremental investments in new technologies with a view to countering Russian air defenses and increasing U.S. long-range fires could significantly improve defense and deterrence while compelling increased Russian investment in countermeasures. Investments in more-revolutionary next-generation technologies could have even greater effects, given the Russian concerns about *new physical principles*, or nontraditional weapons—including directed energy, electromagnetic, geophysical, genetic, and radiological weapons—but could also risk threatening Russia by undermining regime and leadership security.

Conclusions

Russia's greatest vulnerability in any competition with the United States is its economy, which is comparatively small and highly dependent on energy exports. The Russian leadership's greatest anxiety stems from the stability and durability of the regime.

Russia's greatest strengths are in the military and information warfare realms. Russia has deployed advanced air defense, artillery, and missile systems that greatly outrange U.S. and NATO air-defense suppression and artillery counterbattery capability, potentially requiring U.S. ground forces to fight without air superiority and with inferior fire support. Russia has also matched new technology to old techniques of misinformation, subversion, and destabilization.

The most promising measures to stress Russia are those which directly address these vulnerabilities, anxieties, and strengths, exploiting areas of weakness while undermining Russia's current advantages.

Continuing to expand U.S. energy production in all forms, including renewables, and encouraging other countries to do the same would maximize pressure on Russia's export receipts and thus on its national and defense budgets. Alone among the many measures looked at in this report, this one comes with the least cost or risk.

Sanctions can also limit Russia's economic potential. To be effective, however, these need to be multilateral, involving (at a minimum) the European Union, which is Russia's largest customer and greatest source of technology and capital, larger in all these respects than the United States.

Russia's combination of internet-enhanced political espionage and information operations, coupled with its long experience in subversion and propaganda, have created both a key supplement to covert and overt military operations and an independent capacity to discredit and destabilize democratic political systems. Yet the Russian leadership also harbors fears (probably exaggerated) of a U.S. capacity to undermine the Russian system. Credibly threatening to do so might be the most effective way of persuading Russian leaders to scale back their own efforts in this domain. Questioning the legitimacy of the Russian regime, diminishing its standing at home and abroad, and openly sup-

porting democratic change probably will not shake the foundations of the Russian state but might be sufficient to secure a form of mutual détente in this realm of information warfare.

European governments have shown rising concern over Russian cyber-subversion. Indeed, this issue, perhaps even more than concern over Russian behavior in Ukraine or Syria, might foster European support for further sanctions on Moscow.

It will be difficult to raise the costs to Moscow of its external military commitments because most of these are in small areas adjacent to Russia and populated with comparatively pro-Russian populations. Here, geography awards Russia escalation dominance, which means any effort to promote greater local resistance could meet a severe rebuff, costly to the United States in prestige and to its local allies in lives and land. Syria might have been a more promising ground to promote local opposition to the Russian presence in 2015, but Syrian opposition forces have since been ground down by the regime and further infiltrated by al Qaeda–affiliated extremists, making this an unattractive proposition. There are also severe costs to regional and even European stability in prolonging the Syrian civil war. Increasing U.S. arms and advice to the Ukrainian military is the most viable of the geopolitical alternatives considered, but any such effort would need to be carefully calibrated to avoid expanding the conflict.

Russia is not seeking parity with the United States across the military spectrum, and further U.S. advances in fields of existing superiority might occasion little Russian response. For instance, Russia is not going to challenge U.S. dominance of the world's oceans. Targeted measures focused on threatening what limited maritime access Russia enjoys to the Arctic, Baltic, and Black Seas, however, could lead Russia to invest in costly and largely ineffective countermeasures. Possible U.S. measures include more-frequent patrolling by nuclear submarines near the Arctic bases and the deployment of land-based and/or air-launched anti-ship cruise missiles near the Black Sea coast.

Russia would likely feel compelled to match any increase in U.S. strategic nuclear capabilities. Entering into such an arms race would be the riskiest of the measures examined herein. Additionally, expanded U.S. ballistic missile defense would probably cost the United States a

good deal more than the likely Russian response, which would be to increase its number of missiles and warheads.

The other area where Russia has maintained parity and even achieved superiority is in air defense and long-range fires. Here, greater U.S. investment in longer-range air defense suppression, more-advanced electronic warfare, new and longer-range sea- and air-launched cruise missiles, and more-exotic systems with advanced capabilities would likely lead to an expensive Russian response.

Basing large additional U.S. ground forces in Europe might be necessary for deterrence and would likely impel a Russian force posture response, particularly if these forces were positioned close to Russia. The costs to the United States are likely to be higher than those to Russia, however, while increasing deployments near Russian borders would increase tensions, generate controversy among NATO members, and possibly provoke Russian reactions elsewhere.

The demise of the INF Treaty would be of limited benefit to NATO, given the great advantage the United States holds in sea-launched cruise missiles of comparable range, which are not constrained by the treaty. Russian violations of this treaty might cause the United States to withdraw, and this might be advantageous vis-à-vis China, but deploying a new generation of INF missiles in Europe would be expensive, politically challenging, and—depending on the missile type—potentially destabilizing.

Most of the steps covered in this report are in some sense escalatory, and most would likely prompt some Russian counter-escalation. In addition to the specific risks associated with each measure, therefore, there is additional risk attached to a generally intensified competition with a nuclear-armed adversary to consider. Consequently, every measure needs to be deliberately planned and carefully calibrated to achieve the desired effect. Finally, although Russia would bear the cost of this increased competition less easily than the United States, both sides would have to divert national resources from other purposes. Extending Russia for its own sake is, in most cases, not a sufficient basis to consider the steps outlined here. Rather, these need to be considered in the broader context of national policy based on defense, deterrence, and—where U.S. and Russian interests align—cooperation.

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Abbreviations

A2AD	anti-access and area denial
ABCT	armored brigade combat team
AARGM	advanced anti-radiation guided missile
ABM	Anti-Ballistic Missile
ADST	Association for Diplomatic Studies and Training
ASCM	anti-ship cruise missile
ASW	anti-submarine warfare
ATACMS	Army Tactical Missile System
bcm	billion cubic meters
BCT	brigade combat team
BMD	ballistic missile defense
CFE	Conventional Armed Forces in Europe
CIA	Central Intelligence Agency
CPGS	conventional prompt global strike
EEC	Eurasian Economic Commission
EEU	Eurasian Economic Union
EW	electronic warfare

EU	European Union
FY	fiscal year
G-7	Group of Seven
G-8	Group of Eight
GDP	gross domestic product
GLCM	ground-launched cruise missile
HARM	high-speed antiradiation missile
IADS	integrated air defense system
ICBM	intercontinental ballistic missile
IFPC2	Indirect Fire Protection Capability Increment 2
IISS	International Institute for Strategic Studies
IMF	International Monetary Fund
INF	Intermediate-Range Nuclear Forces
LACM	land attack cruise missile
LNG	liquefied natural gas
MIRV	multiple independently targeted reentry vehicle
MLRS	Multiple Launch Rocket System
NATO	North Atlantic Treaty Organization
R&D	research and development
RDIF	Russian Direct Investment Fund
REFORGER	Return of Forces to Germany
Rosstat	Russian Federation Federal State Statistics Service
SALT	Strategic Arms Limitations Treaty
SDI	Strategic Defense Initiative

SLBM	ship-launched ballistic missile
SSN	nuclear-powered attack submarine
SSBN	nuclear-powered ballistic missile submarine
SmallSats	small satellites
START	Strategic Arms Reduction Treaty
THAAD	Terminal High-Altitude Area Defense
TRACECA	Transport Corridor Europe-Caucasus-Asia
UAE	United Arab Emirates
UN	United Nations

CHAPTER ONE

Introduction

This report examines a range of possible means to extend Russia. Recognizing that some level of competition with Russia is inevitable, we seek to define areas where the United States can do so to its advantage. We examine nonviolent measures that could stress Russia's military, its economy, or the regime's political standing at home and abroad. The steps we posit would not have defense or deterrence as their prime purpose, although they might contribute to either or both. Rather, these steps are conceived of as elements in a campaign designed to unbalance the adversary, leading Russia to compete in domains or regions where the United States has a competitive advantage, inspiring Russia to overextend itself militarily or economically or causing the regime to lose domestic and/or international prestige and influence.

One historical reference point for such measures can be found in the policies of the Jimmy Carter and Ronald Reagan administrations through the 1980s. These included a massive U.S. defense buildup, the launch of the Strategic Defense Initiative (SDI, also known as Star Wars), the deployment of intermediate-range nuclear-armed missiles to Europe, assistance to the anti-Soviet resistance in Afghanistan, the intensification of anti-Soviet rhetoric (the so-called evil empire), and support to dissidents in the Soviet Union and its satellite states.

While it remains uncertain how much these measures actually contributed to the demise of the Warsaw Pact and the collapse of the Soviet Union, U.S. policy through that decade did require Moscow to make some difficult choices. In the end, the new leadership under Mikael Gorbachev withdrew Soviet forces, first from Afghanistan

and then from Eastern Europe, while agreeing to cut strategic nuclear weapons and eliminate ground-based intermediate-range missiles.

It is also worth noting that most of those late–Cold War U.S. policies were conceived at the time as defensive measures against a Soviet Union that was thought to be strong, growing stronger, and harboring further expansionary aspirations. We can now see that the Reagan-era Soviet Union was weaker than was realized at the time, growing progressively weaker, and was already badly overextended. Russia today is not the Soviet Union of the late 20th century. It is weaker, but more contained. It possesses half the population and dominates almost no external empire. Russia is, in consequence, less powerful than the Soviet Union, but its population is more homogeneous, its territory more compact, and its economy more open. While it is an open question whether Vladimir Putin's regime is as brittle as that of the Soviet Union in its last years, it probably is not. Yet while U.S. policy must focus on coping with Russia's current leadership, setting conditions that incentivize better behavior on the part of Putin's eventual successors should also be a consideration.

Russia also is not America's most formidable potential adversary today. Russia cannot afford to compete head to head with the United States, whereas China can, with increasing strength. Some measures that could stress Russia at little cost to the United States might prompt Chinese responses that, in turn, could stress the United States. Washington is no longer in a bipolar competition with Moscow, and this introduces new complexities in any effort to design cost-imposing or extending strategies focused on straining Russian capacity, will, and legitimacy.

The United States can select from a range of approaches for extending Russia that emphasize different strategic objectives. These choices each present a unique set of costs and risks that policymakers must weigh against their potential benefits. Furthermore, most of these choices affect U.S. allies and strategic partners at least as much as they do the United States, and some of these measures would require the participation of allies to be effective.

This report examines a variety of measures that the United States and its friends and allies might take to extend Russia. Most fall into the

category known as *cost-imposing strategies*, the purpose of which is to place a burden on a potential adversary that is greater than would have been imposed otherwise and is ideally less than the burden undertaken by the imposing side. Activities that the United States is already undertaking, such as ensuring the security of its allies in the North Atlantic Treaty Organization (NATO), might impose costs upon Moscow but are not cost-imposing strategies per se because they are not primarily designed to extend Russia.

Methodology

This work builds on a long genre of intellectual work on long-term competition. As already mentioned, the concept of *extending Russia* has certain historical analogs to U.S. strategies for long-term competition during the Cold War, some of which originated at the RAND Corporation, which specialized in this out-of-the-box thinking, especially in the early half of the Cold War.[1] In 1972, Andrew W. Marshall, later the director of the Pentagon's internal think tank Office of Net Assessment, published the widely influential RAND report, *Long-Term Competition with the Soviets: A Framework for Analysis*.[2] Marshall argued that with the Soviet Union closing the gap with the United States in military research and development (R&D), the United States needed to shift its strategic thinking—from trying to stay ahead of the Soviet Union in all dimensions to trying to control the competition and channel it into areas of U.S. competitive advantage.[3] If done successfully, Marshall concluded, the United States could prompt the Soviet Union to shift its limited resources into areas that posed less of a threat.[4] Later

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1 Daniel I. Gouré, "Overview of the Competitive Strategies Initiative," in Thomas G. Mankhen, ed., *Competitive Strategies for the 21st Century: Theory, History, and Practice*, Stanford, Calif.: Stanford University Press, 2012, p. 92.

2 A. W. Marshall, *Long-Term Competition with the Soviets: A Framework for Analysis*, Santa Monica, Calif.: RAND Corporation, R-862-PR, 1972.

3 Marshall, 1972, p. vii.

4 Marshall, 1972, p. viii.

strategists labeled Marshall's paper "a seminal contribution to U.S. strategic thinking in the post–Cold War world."[5]

Thanks in no small part to RAND, and later the Office of Net Assessment, work on competitive strategies continued throughout the Cold War.[6] After the Cold War ended, analysts tried to apply the concept—with varying degrees of success—to new adversaries, from insurgents in Iraq to rising China.[7] In this report, we apply this concept to new (or old) adversary Putin's Russia, but the basic concept remains the same—to channel competition with Russia into areas of comparative U.S. advantage as a way to exhaust limited Russian resources.

To develop the measures to extend Russia discussed in this report, we first commissioned an analysis of Russian anxieties and vulnerabilities (a draft of which is now reflected in Chapter Two). Measures designed to extend Russia can produce the desired effects only if they become known to the Russian leadership and often to the Russian people, and if they correspond in some way to self-perceived vulnerabilities and induce action. Importantly, increasing Russian fear and anxiety are only instruments in encouraging Russia to overextend itself militarily or economically; they are not ends in and of themselves. In fact, a risk discussed throughout this report is that Russia could respond to certain U.S. measures in ways that harm the interests of the United States or its allies or in ways that reduce stability.

After identifying Russia's perceived anxieties and vulnerabilities, we convened a panel of experts to examine the economic, geopolitical, ideological, informational, and military means to exploit them. Drawing on these expert opinions and on current policy debates, we developed a series of potential measures that could extend Russia. After describing each measure, we assessed the costs and risks associated with each and the prospect of success. Could the measure impose a disproportional burden on Russia, and what are the chances of it doing so?

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5 Quoted in Gouré, 2012, p. 90.

6 For a concise history, see Gordon S. Barrass, "U.S. Competitive Strategies During the Cold War" in Thomas G. Mankhen, ed., *Competitive Strategies for the 21st Century: Theory, History, and Practice*, Stanford, Calif.: Stanford University Press, 2012.

7 Gouré, 2012, pp. 101–102.

Importantly, due to space and resource constraints, we do not quantitatively cost out each measure to extend Russia; instead, we relied on more-qualitative judgments of the researchers. While we believe that these judgments accurately capture whether each measure would be cost-imposing or cost-incurring for the United States, future analysis would benefit from estimating the dollar amounts involved more rigorously.

Overview and the Central Argument of the Report

We begin by assessing Russian vulnerabilities and what we know of Russian anxieties in Chapter Two. Our discussion of policy options to extend Russia begins in Chapter Three, in which we consider economic measures to extend Russia, including sanctions and steps to hold down global oil and gas prices—and thus, Russian export earnings. In Chapter Four, we consider political, informational, and ideological measures to reduce Russian influence abroad and question the regime's popular support at home. In Chapter Five, we examine possibilities of increasing the cost to Russia of its external military commitments in the Caucasus, Ukraine, and Syria. In Chapters Six, Seven, and Eight, we look at military force posture and weapon development in the aerospace, maritime, and land domains, respectively. Finally, we discuss our overall conclusions in Chapter Nine about the benefits, risks, and likelihood of success for extending Russia, as well the implications for the U.S. Army, in particular.

We are not recommending all of these measures, nor any particular combination thereof. The purpose of this study is not to propose a policy for dealing with Russia, only to evaluate a range of options available to the United States should it choose to intensify competition with that country. Most of the steps covered in this report are potentially escalatory, and most would likely prompt some Russian counter-escalation. The United States must consider and evaluate the available likely Russian counter-escalation options and seek to deny or neutralize them as part of the overall U.S. strategy. In addition to the specific risks associated with each measure, therefore, there is additional

risk attached to a generally intensified competition with a nuclear-armed adversary to consider. Finally, although Russia would bear the cost of this increased competition less easily than the United States (and, potentially, its friends and allies), both sides would have to divert national resources from other purposes.

CHAPTER TWO

Russia's Anxieties and Vulnerabilities

The maxim that "Russia is never so strong nor as weak as it appears" remains as true in the current century as it was in the 19th and 20th.[1] In some respects, contemporary Russia is a country in prolonged stagnation. Its economy is dependent on natural resource exports, so falling oil prices and economic sanctions have caused a significant decrease in the living standards of many Russian citizens. The Russian population is rapidly aging, which both decreases the available manpower to its industries and military and increases the national economic burden of its growing elderly population. Russian politics are increasingly authoritarian, with no viable political alternative to the highly personalized rule of President Putin. Militarily, economically, and politically, the Russian Federation wields much less global influence than the Soviet Union did during the Cold War. Yet these problems belie the fact that Russia has gained economic strength and international weight under Putin. Russia is an extraordinarily powerful country that, despite its systemic weaknesses, manages to be a peer competitor of the United States in some domains. While not the superpower that the Soviet Union was, Russia still possesses substantial military capabilities, and its geographic location adjacent to Europe, the Middle East, and Asia often gives it a home-field advantage. Any attempt to identify strategies to compete with Russia on the world stage must grapple with this paradox.

[1] The origin of this quote is unclear, but it has been around for hundreds of years. See Mark N. Katz, "Policy Watch: Is Russia Strong or Weak?" UPI, July 10, 2006.

Russia has demonstrated this ability to wield much greater power than other countries with comparable economic and industrial resources at many points in its history. Tsarist Russia expanded to control one of the largest empires in human history despite retaining a feudal economy until the late 19th century. In the 16th century, the government of Tsar Ivan IV (The Terrible) established a firearm factory and his forces defeated the premier military power of the day, Ottoman Turkey. In the early 18th century, the westernizing Tsar Peter I (The Great) established shipbuilding and weapon-manufacturing industries based on Western models, then humiliated Sweden in the war that firmly established Russia as a major European power. Napoleon's attempt to conquer the Russian Empire proved his undoing. While the brutal Russian winter thinned the ranks of Napoleon's multinational *Grande Armée*, it did nothing to help with the subsequent campaigns that concluded with the surrender of Paris to a mostly Russian army in 1814.[2] Russia's embarrassing defeat by Britain and France in the Crimean War (1853–1856) only briefly halted its continued territorial expansion, even as it revealed the extent of Russia's political and military failings.

The Soviet Union also boasted disproportionate military power relative to its overall economy. The First World War and subsequent Russian Civil War devastated Russian industry, with the result that the Soviet Union could barely manufacture modern weapons in the 1920s. Dictator Joseph Stalin's crash industrialization drive began in the late 1920s partly because of Communist leaders' anxiety that they could not win a war against such an adversary as Britain or Germany.[3] The command economy privileged military production, enabling leaders to funnel resources to defense at the expense of the civilian economy. Real standards of living dropped markedly under Stalin's rule, even compared with the already austere 1920s and even as the Soviet Union

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[2] Dominic Lieven, *Russia Against Napoleon: The Battle for Europe, 1807 to 1814*, London: Penguin UK, 2009.

[3] Irina V. Bystrova, *Sovetskii voenno-promyshlennyi komplks: problem stanovleniia i razvitiia (1930–1980-e gody)* [*The Soviet Military-Industrial Complex: Problems of Establishment and Development (Years 1930–1980)*], Moscow: Institut Rossiiskoi Istorii RAN, 2006, Chapters 1–2.

developed a formidable ability to produce quality weapons, such as the T-34 tank, in great quantity. The Nazi invasion destroyed much of Soviet industry, but the postwar Soviet Union was more powerful militarily than ever, enabling Stalin to defy a U.S.-dominated postwar order.[4] At its height, the Soviet Union challenged the United States as a military peer in many domains—notably strategic nuclear forces—and seriously outmatched it in a few—such as conventional forces in Europe—that were considered critical by Soviet leaders. Thanks to its command economy and lower labor costs, the Soviet Union could devote a much larger share of its smaller economy to the military than the United States could, allowing it to match U.S. defense capabilities. This factor combined with the Soviet Union's immense natural and human resources to make it the most capable adversary the United States had ever faced.

At other points, however, Russia and the Soviet Union found themselves humiliated by much smaller powers. Russia's defeat in the Russo-Japanese War (1904–1905) shocked the world and led to a political revolution in the Tsarist empire. Similarly, Finland maintained its independence from the Soviet Union in the ferocious 1940 Winter War. Russia's vastly larger size and population could not compensate in these instances for its mismanagement and poor government. But, as Hitler discovered, Russia's systemic vulnerabilities could be difficult to exploit in practice, even for a peer power.

While many observers in the immediate post–Cold War years dismissed Russia's global power status as a rapidly depreciating inheritance from the Soviet Union that would soon join Marxism-Leninism in the dustbin of history, recent events have demonstrated the naïveté of this view. Putin's Russia is not just a smaller remnant of the Soviet Union; it has different strengths and vulnerabilities than the old Communist empire did. In many respects, it is less powerful than the Soviet Union was, with considerably reduced territory, population, and share of the world's economy, but the Russian Federation is a considerably more normal country, having shed the Soviet Union's most critical weaknesses by abandoning state socialism, Bolshevik ideology,

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4 Bystrova, 2006.

and a host of unwilling satellite nations. Most importantly, Moscow's ambitions have generally shrunk along with its resources. The Soviet Union promised to build a perfected society that would be as just as it was prosperous, and sought to export this vision to all corners of the world. The universal extent of these aims led the Kremlin to squander enormous resources trying to spread and defend Communism. To the extent that Putin's Russia has a coherent ideology at all, it is a mixture of 19th-century Russian nationalism and 21st-century postmodernism, the limited goals of which are much more attainable than those of Marxism-Leninism. Competitive strategies that might have worked well against the Soviet Union might prove less successful against contemporary Russia, and vice versa.

Russia Since 1991

Putin is far from the sole author of Russia's present autocratic regime. The anti-democratic aspects of the country's current government date back to the collapse of the Soviet Union in late 1991. During the 1990s, fears that Communist rule might return enabled Boris Yeltsin, president of the Russian Federation, to construct a highly centralized executive state that marginalized his political rivals. Yeltsin insisted that these dramatic steps were essential to preserve Russia's nascent democracy and navigate the difficult transition to a market economy, but in retrospect he laid the foundation for his successor's domineering rule.

From Yeltsin to Putin

Yeltsin's rhetoric in support of democracy and free markets played a preeminent role in sowing present-day Russians' distrust of these concepts.[5] The rapid collapse of Communist rule at the beginning of the 1990s resulted from both the Soviet state losing its legitimacy and the ongoing decline of the Soviet Union's economy. Yeltsin's government promised

[5] A 2014–2015 study by the Levada Center found that only a small percentage of Russians associated the word *demokratiia* (democracy) with the "chaos of the 90s." Denis Volkov and Stepan Goncharov, "ДЕМОКРАТИЯ В РОССИИ: УСТАНОВКИ НАСЕЛЕНИЯ," ["Democracy in Russia"], Levada Center, August 11, 2015.

that a swift transition to a market economy, dubbed "shock therapy," would be the least painful way to move away from the country's socialist past.[6] In 1993, Russia's legislature, the Congress of People's Deputies, defied Yeltsin's economic liberalization plans. This led to a crisis that ultimately culminated with the president ordering the Russian Army to fire upon the parliament building and an ensuing street fight that killed hundreds. Yeltsin insisted that the rebellious parliament had been a reprise of the failed August 1991 coup and that its leaders sought to destroy democratic rule in the country, an assertion that a majority of Russians found plausible at the time. In its aftermath, he successfully advocated the adoption of a new constitution granting most authority to the president with relatively few checks on his power from either the judiciary or the new parliament, the State Duma.[7]

The new constitution removed the obstacles to Yeltsin's economic reform program, which proceeded with disastrous results. A handful of well-placed individuals gamed the privatization process to accumulate the bulk of the country's wealth for themselves, leading to the emergence of a tiny class of oligarchs who competed for power. Meanwhile, privatization accelerated rather than reversed the country's already-steep economic decline. Rampant inflation and the closure of many inefficient state enterprises deprived millions of Russians of both their savings and their employment. Predictably, many of them grew disaffected with Yeltsin's supposed democracy and free enterprise—and with the president himself.

Yeltsin's deep unpopularity led to a serious threat that he would be ousted in the 1996 presidential election. Drawing on voters' unhappiness with Yeltsin's economic reforms, Gennady Zyuganov, the candidate of the Communist Party of the Russian Federation, stood a real chance of replacing Yeltsin. Thanks substantially to the domination of the Russian media by Yeltsin and his oligarch allies, Yeltsin pulled out a razor-thin margin of victory in the election and remained president.

Yeltsin's second term also proved troubled. Economic mismanagement and low oil prices led to the devaluation of the ruble in 1998, result-

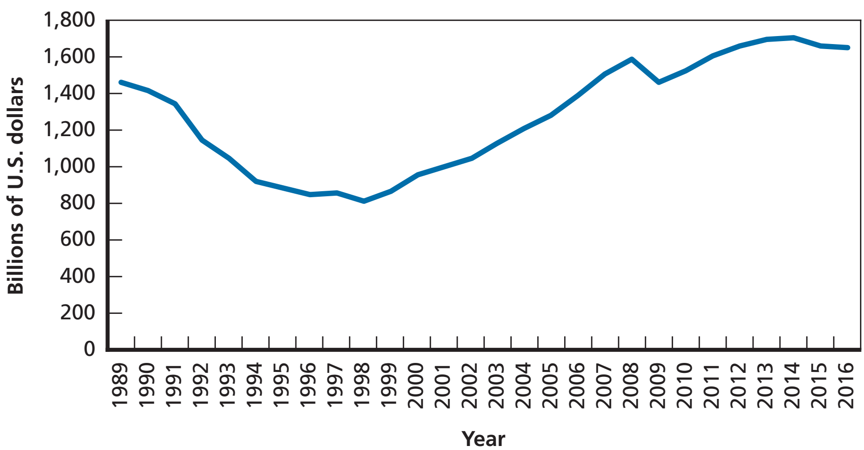
6 "'Shock Therapy'—with Emphasis on Shock," *Newsweek*, January 12, 1992.

7 Thomas F. Remington, *Politics in Russia*, London: Routledge, 2015, pp. 57–66.

ing in an even deeper economic collapse. Late in Yeltsin's presidency, Russian gross domestic product (GDP) had declined 45 percent from its already low level at the end of the 1980s (Figure 2.1). Meanwhile, Yeltsin suffered from poor health, alcoholism, and increasing unpopularity. Instability also afflicted his government. The president went through a succession of prime ministers before he selected a relatively unknown former KGB colonel from Saint Petersburg, Vladimir Putin, in August 1999. Yeltsin resigned at the end of that year and named the popular prime minister as interim president, essentially making Putin his handpicked successor. Putin returned the favor by signing a decree protecting Yeltsin and his family from prosecution for corruption.[8]

President Putin practiced a more sophisticated, competent version of his predecessor's personal power politics. Initially building his popu-

Figure 2.1
Gross Domestic Product of Russian Federation, 1989–2016



SOURCE: World Bank, "World Development Indicators (WDI)," data file, Washington, D.C., undated-b.
NOTE: Measurements are in billions of 2010 constant U.S. dollars, converted by exchange rates.

[8] Martin Nicholson, "Putin's Russia: Slowing the Pendulum Without Stopping the Clock," *International Affairs (Royal Institute of International Affairs 1944–)*, Vol. 77, No. 4, October 2001, p. 868.

larity on the basis of his vigorous prosecution of the Second Chechen War, Putin benefited from rising international energy prices that spurred strong economic growth in Russia. Living standards finally began rising after more than a decade of decline and stagnation, burnishing the president's legitimacy.

Military Decline and Loss of Diplomatic Influence

Throughout the 1990s, the Russian army suffered from a failure to modernize and a sharp decline in real capabilities. The Russian Federation inherited a large draft army from the Soviet Union that was ill adapted to the country's needs and resources, with large numbers of troops deployed in former Soviet bases abroad until the mid-1990s. Meanwhile, the country's economic and budgetary distress led to a pause in the procurement of advanced military hardware and inadequate maintenance of existing stocks. The degraded state of the Russian military in the immediate post-1991 years led to its humiliating inability to secure victory in the First Chechen War (1994–1996).[9] Despite these embarrassments, Russia continued to invest in modernized strategic nuclear forces even as it accepted U.S. assistance to reduce the size of its nuclear arsenal.

Similarly, Russia never abandoned its determination to remain an influential diplomatic force. Boris Yeltsin initially hoped for greater integration into Western institutions, possibly even NATO membership for Russia, but it soon became clear this was not in the cards. Even so, Moscow cooperated closely with the United States on arms control and nuclear nonproliferation in the 1990s. While Western governments largely brushed off Russian concerns about its place in Europe's evolving post–Cold War order, and despite Russia's economic weakness, President Bill Clinton sponsored the country's addition to the Group of Seven (G-7) to placate the Kremlin following the initial post–Cold War round of NATO expansion.[10] Tensions between Russia and

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[9] Jean-François Ratelle, "A Critical Assessment of the Scholarship on Violent Conflicts in the North Caucasus During the Post-Soviet Period," *Caucasus Survey*, Vol. 3, No. 1, 2015.

[10] G-7 includes Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. It was founded to facilitate shared macroeconomic initiatives by its members in response to the collapse of the exchange rate in 1971.

NATO came to a head during the 1999 Kosovo War, in which Russia sympathized with Serbia. At the end of the war, Russian forces seized the Pristina airport to protest the postwar peacekeeping arrangement, resulting in a short international crisis and a brief chill in NATO-Russia relations. After assuming office at the end of 1999, however, Putin sought a more constructive relationship with NATO. Russian officials expressed hopes that NATO would evolve from a military alliance antagonistic toward Russia to a political organization with which Moscow could cooperate. The Kremlin hoped that its assistance to the NATO-led campaign in Afghanistan would encourage NATO to reciprocate and respect Russian interests. Russian leaders' muted response to the expansion of NATO in 2004 to include the three former Soviet (and, earlier still, former Imperial Russian) Baltic nations of Estonia, Latvia, and Lithuania belied intense displeasure at this development, similar to their initial attitude toward the 2003 Rose Revolution in Georgia and the 2004 Orange Revolution in Ukraine, which installed anti-Moscow governments in those countries. Convinced that diplomatic measures had proved impotent to resist further NATO expansion and prevent so-called color revolutions, Russian leaders undertook a military intervention in Georgia in 2008 to signal their determination to prevent further expansion of the Alliance into former Soviet republics that are referred to as Russia's near abroad. While Russian forces attained a quick victory over the Georgians, the campaign made it clear that the Russian military still remained in desperate need of reform.[11]

Contemporary Russian Military

The present-day Russian military is a capable, albeit uneven, fighting force. Its ground and air forces can dominate the country's near abroad militarily, leaving other former Soviet republics with scant hope of prevailing in a direct military confrontation with Moscow. The Kremlin also possesses a survivable strategic nuclear deterrent

[11] Tor Bukkvoll, "Russia's Military Performance in Georgia," *Military Review*, Vol. 89, No. 6, 2009.

consisting of land-based intercontinental ballistic missiles (ICBMs), submarine-based ship-launched ballistic missiles (SLBMs), and bombers with air-launched cruise missiles, along with a formidable arsenal of tactical nuclear weapons.[12] Thanks to decades of sustained investment, Russia boasts advanced air defense capabilities.[13] Compared with the United States (or the Soviet Union), Putin's Russia has a limited ability to project force, but defeating it on its home turf would be extremely challenging and costly. Moreover, it maintains these capabilities with a defense budget comparable to that of several weaker military powers, as illustrated in Figure 2.2.[14]

Reform Efforts

After decades of abortive military reforms dating back to the Soviet period, the Russian military has in recent years successfully moved away from the outdated institutional structures and concepts it inherited from the Soviet Union. The Soviet Union maintained an immense conscript army primarily to fight a campaign in central Europe, backed by a huge body of reservists and an officer corps sufficient to lead them. These forces were grossly maladapted for the needs of post-Soviet Russia, but institutional opposition forestalled meaningful reform for nearly 20 years. In the late 2000s, the country revamped its sclerotic and massively unpopular system of conscription. While universal male conscription still exists in Russia, the draft period was reduced from two years to one, and the military has accordingly increased the role of volunteer soldiers (referred to as contract soldiers), who finally outnumbered draftees in 2015. These reforms helped alleviate longstanding problems with low morale and hazing. The Russian military also reduced the size of its bloated officer corps to better match that of

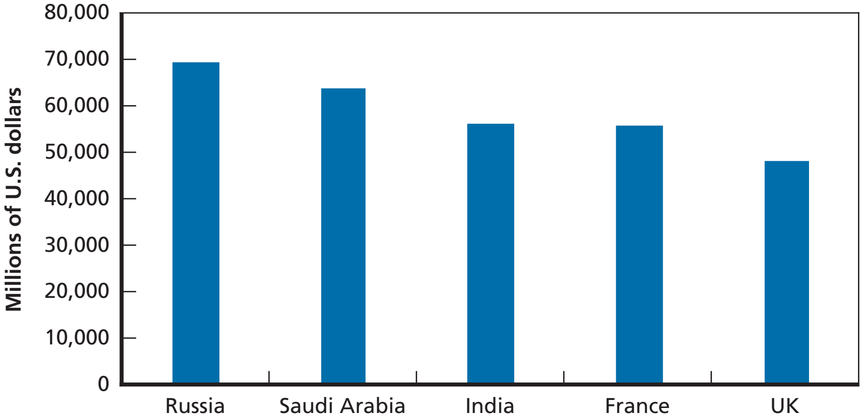
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[12] Hans M. Kristensen and Robert S. Norris, "Russian Nuclear Forces, 2016," *Bulletin of the Atomic Scientists*, Vol. 72, No. 3, 2016.

[13] Information Handling Services Jane's, "Strategic Weapon Systems," *Jane's Sentinel Security Assessment—Russia and the CIS*, Englewood, Colo.: IHS Global Limited, April 25, 2016c; Information Handling Services Jane's, "Air Force," *Jane's Sentinel Security Assessment—Russia and the CIS*, Englewood, Colo.: IHS Global Limited, April 25, 2016a.

[14] Center for the Analysis of Strategy and Technology, *Gosudarstvennye programmy vooruzheniia Rossiiskoi Federatsii: problem ispolneniia i potentsial potimizatsii*, Moscow, 2015, p. 16.

Figure 2.2
2016 Defense Spending of Russia, Saudi Arabia, India, France, and United Kingdom



SOURCE: Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," online database, undated.
NOTE: Figures are in current prices, converted at the exchange rate for 2016.

enlisted forces. These rationalizations resulted in a more professional and effective fighting force. Along with these institutional reforms, Russia has also been reconsidering its operating concepts. Western observers disagree over the level of Russian military leaders' acceptance of such concepts as "hybrid warfare" and such proposals as "escalating to de-escalate" with nuclear weapons, but the 2014 seizure of Crimea demonstrated the Russian military's capability to wage an unconventional military campaign.[15]

Budgets and Financing

In 2016, defense spending in Russia was about one-tenth of that in the United States.[16] This sum funded an active force of about

[15] Emmanuel Karagiannis, "The Russian Interventions in South Ossetia and Crimea Compared: Military Performance, Legitimacy and Goals," *Contemporary Security Policy*, Vol. 35, No. 3, 2014.

[16] Stockholm International Peace Research Institute, 2016.

770,000 troops and 2 million reservists.[17] Significantly, Russian leaders seem committed to keeping defense spending under about 5 percent of national GDP. If this is the case, then the United States will find it hard to persuade Russia to substantially increase defense spending unless it convinces the Kremlin that new threats to Russian security demand a change to this policy.

While much Russian military equipment still dates back to the Soviet period, Russia launched an ambitious modernization program at the beginning of the decade seeking to provide the military with "70 percent modern equipment by 2020."[18] While the post-Crimea budget crunch has forced the Kremlin to scale back these targets, generous funding in the early 2010s enabled substantial progress.[19]

Military-Industrial Complex

To support its military, Russia maintains a vast military-industrial complex. Defined in Russian law and policy as the *defense-industrial complex*, it is overseen by the Military-Industrial Commission. Formally headed by Putin himself, this body produces both the State Armaments Plan, which guides long-term procurement planning, and the annual State Defense Order, which determines how the Russian procurement budget is spent each year.[20] The Russian military-industrial complex has shown it can produce modern weapons, if only in relatively limited numbers. Certain systems favored by Russian decisionmakers have benefited from decades of sustained investment and are world class. The S-400 air-defense system and T-14 Armata tank are advanced systems with no U.S. counterpart, as is Russia's family of mobile ground-based strategic nuclear launchers. Russia's brisk arms

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[17] John Chipman, ed., *The Military Balance 2016*, London: International Institute for Strategic Studies, 2016, pp. 22–23.

[18] Julian Cooper, *Russia's State Armament Programme to 2020: A Quantitative Assessment of Implementation 2011–2015*, Stockholm: FOI, 2016, p. 3.

[19] Cooper, 2016.

[20] Cooper, 2016, p. 10.

export business—estimated to total about $14.5 billion in 2016—attests to the quality and value offered by its weapons.[21]

The performance of the Russian defense industry in delivering modern systems to the armed forces is relatively good in light of the country's economic crisis, but weak areas remain.[22] Much of Russia's defense industry has been neglected since Soviet times and is in desperate need of capital modernization. Critical production facilities and suppliers are located in former Soviet republics that are now hostile to Russia, particularly Ukraine, necessitating costly substitution programs.[23] Like the rest of the Russian economy, the military-industrial complex is afflicted by corruption, although this might not be particularly bad by Russian standards.[24] Moreover, much of the defense industry is state-owned via large holding companies. Both Russian and Western critics often charge that isolation from market forces is a critical weakness of the Russian military-industrial complex, but it is far from clear that this presents a vulnerability that could be exploited by a cost-imposing strategy.[25] Corrupt and inefficient as the Russian defense industry might be, the cost-control problems afflicting U.S. defense

[21] Putin gave this figure in a November 2016 meeting of the President's Council for Strategic Development and Priority Projects. "Putin: podderzhim exporterov i predpriatiia OPK," *Vesti Ekonomika*, November 25, 2016.

[22] Richard Connolly and Cecilie Sendstad, "Russian Rearmament: An Assessment of Defense-Industrial Performance," *Problems of Post-Communism*, Vol. 62, No. 2, 2016.

[23] Cooper, 2016, pp. 39–41.

[24] Although no systematic estimate of the cost of corruption in the Russian defense sector is available, the Military-Industrial Commission website reproduced a newspaper article by defense analyst Vitalii Ovechkin asserting that it "likely total(s) tens of billions of rubles." Vitalii Ovechkin, "Kak Voenno-promyshlennaia kommissia Rossii boret'sia s korruptsiei," *Lenta VPK*, April 22, 2015.

[25] D. K. Latiushenok, "Sovremmenoe sostoianie oboronno-promyshlennyi kompleksa Rossii," *Vestnik Sibirskogo gosudarstvennogo aerokosmicheskogo universiteta im. Akademika M.F. Reshetneva*, Vol. 16, No. 1, 2015; Roger McDermott, "Russia's Defense Industry Creaks Under High-Tech Military Demands," *Eurasia Daily Monitor*, Vol. 13, No. 86, May 3, 2016a.

procurement are so large that the Russians are often highly competitive on a cost-comparison basis.[26]

Potential Vulnerabilities

For all their strengths, the Russian military and defense industry still suffer from many vulnerabilities. Even though ground forces make up the bulk of the Russian military and are still using outdated equipment, the Russian defense budget deemphasizes them in comparison with other services. While the quality of the average Russian soldier and his equipment is improving, it still lags considerably behind U.S. standards. The need to recapitalize the defense industry and the inadequacy of available funds to do so have helped perpetuate these critical weaknesses. Such areas as surface shipbuilding are in parlous condition, contributing to an uneven modernization. Furthermore, the scientific and technical capital underlying Soviet military strength has atrophied, as have the human resources available to the Russian military-industrial complex. Finally, military spending has been more protected from the effects of Russia's budget crisis than have other areas of the state budget, but it is likely only a matter of time before economic realities catch up with Moscow's military ambitions.

Table 2.1 presents some broad areas of Russian military vulnerability and some illustrative U.S. moves to exploit them.

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[26] Russian media reported in 2011 that the unit price of the *Borei*-class nuclear-powered ballistic missile submarine (SSBN) would be 23.1 billion rubles—about $770 million at the then-current exchange rate. "SMI uznali stoimost' podlodok dliia Minoborony" ["Media Determines Cost of Submarines for Defense Ministry"], Lenta.ru, November 2, 2011. While the price of each submarine has probably increased in nominal terms since then, the collapse of the ruble since 2014 has been sufficient to cancel out substantial cost growth in dollar terms. In contrast, the submarine planned to replace the U.S. *Ohio* class in the 2030s is expected to have a per-unit cost of more than $6 billion. Ronald O'Rourke, *Navy* Columbia *(SSBN-826) Class Ballistic Missile Submarine Program: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, R41129, October 4, 2017b, pp. 10–11.

Table 2.1
Current Military Vulnerabilities of the Russian Federation

Vulnerability	Strategic Exploitability by United States	Potential Cost to Russian Government of U.S. Extension Strategy	Potential Impact on Russian Population of U.S. Extension Strategy	Potential Blowback to United States and Its Allies from U.S. Extension Strategy
Comparative disadvantage in ground force resources	Moderate; unclear how Russia will respond to increased NATO capabilities	A need to reallocate resources from other areas of military and civilian spending	Probably limited	Successful efforts to modernize ground forces that could increase threat to NATO allies
Need to recapitalize defense industry	Moderate to significant; targeted sanctions could be very effective	Increasing inability to develop and field modern military hardware	Reallocation of resources from civilian needs to defense industry that could reduce economic growth	Possible Russian sales of advanced military hardware to potential adversaries (i.e., S-400s to Iran)
Decline of scientific and technical capital	Moderate to significant; could incentivize emigration of talented Russians	Increasing inability to develop and field modern military hardware	Loss of human and technical capital that could undermine long-term Russian economic prospects	Lessened Russian ability to contribute to such areas as space exploration, nuclear nonproliferation
Conflict between military and social spending for state revenues	Moderate; measures reducing total Russian state revenue indirectly strain military budget	Politically fraught choice to cut social spending could greatly increase domestic opposition	Major cuts in social spending that are likely to reduce millions of Russians to poverty	Lower Russian standards of living that could legitimize official hostility to the United States for population.

Contemporary Russian Economy

Unlike its efforts to reform the military, which have enjoyed considerable success, the Russian government's attempts at economic reform have mostly resulted in disappointment. In contrast to the Soviet Union, which was the world's second-largest economy for much of its history, Russia is a comparatively minor economic power, with a much smaller nominal GDP than France or the United Kingdom and well below that of Japan, China, or the United States.[27] The common charge that modern Russia is just a petrostate like Saudi Arabia is grossly overstated, but its economy and state budget are disproportionately dependent on energy exports, the value of which has collapsed.[28] Russia possesses sizable manufacturing and service industries, but these are relatively uncompetitive on the world market, and the country exports few manufactured goods other than weapons. Recognizing the folly of Russia's economic dependence on energy exports, the liberalizing technocrat Dmitry Medvedev pursued a policy of economic *modernization* during his presidency that sought to diversify Russia's economy. Encouraging the development of high-tech goods with high added value for export, including passenger jets and nuclear power plants, he directed substantial government funds toward subsidizing such projects as the Skolkovo Center, which he envisioned as a Russian Silicon Valley. Unfortunately, these well-intentioned schemes largely came to naught, partially because of bad luck, but also because of corruption and policy reversals undertaken by Putin following his return to the presidency in 2012.[29] Furthermore, the Russian government squandered immense sums on economically unproductive

[27] According to the World Bank, France's 2016 GDP in current U.S. dollars was $2.465 trillion while that of the United Kingdom was $2.619 trillion. Russia's, by contrast, was $1.283 trillion. See World Bank, "GDP (current US$)," database, Washington, D.C., undated-a.

[28] Michael Bradshaw and Richard Connolly, "Barrels and Bullets: The Geostrategic Significance of Russia's Oil and Gas Exports," *Bulletin of the Atomic Scientists*, Vol. 72, No. 3, 2016. Oil and gas represent over half of Saudi GDP, compared with 16 percent of Russian GDP in 2012.

[29] Kenneth Wilson, "Modernization or More of the Same in Russia: Was There a 'Thaw' Under Medvedev?" *Problems of Post-Communism*, Vol. 62, No. 3, 2015.

prestige projects, particularly the Sochi Olympics.[30] These poor choices have left Russia in a difficult position to weather its current economic and budgetary crisis.

Overall Economic Trends

Russia's overall economic outlook is unfavorable for both the short and long terms. Between the collapse in energy prices and the international sanctions imposed after the Crimea and Ukraine invasions, Russian GDP fell and is now stagnant.[31] The ruble lost half of its value against the dollar and euro in the aftermath of the crisis, but Russia has nevertheless developed a dependence on imports for both consumer and capital goods. Predictably, these conditions have resulted in a massive tax shortfall and the imposition of austerity measures. For the past two years, the Russian government has been making up the gap by spending down the hard currency reserves built up during the boom years, but these will be exhausted soon, necessitating politically fraught choices to slash social spending. The likelihood that oil prices will remain stagnant for the foreseeable future gives little hope that the Kremlin can make an easy escape from this conundrum. While much of Russian industry was de-privatized (renationalized) under Putin, the government is rumored to be planning a selloff of some of these assets to raise desperately needed cash.[32]

Financial and Human Capital Flight

Financial and human capital flight pose another critical threat to the Russian economy. Throughout the post-Soviet period, well-to-do Russians have sought to secure their wealth outside the country to

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[30] Robert W. Orttung and Sufian Zhemukhov, "The 2014 Sochi Olympic Mega-Project and Russia's Political Economy," *East European Politics*, Vol. 30, No. 2, 2014.

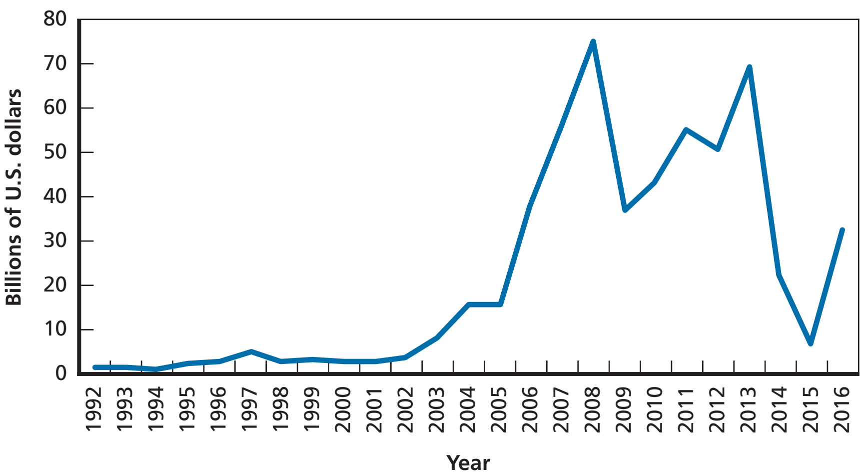
[31] One model predicted that real Russian GDP would drop 19 percent in 2016–2017. Yelena Tuzova and Faryal Qayum, "Global Oil Glut and Sanctions: The Impact on Putin's Russia," *Energy Policy*, Vol. 90, Issue C, 2016.

[32] Keith Crane, Shanthi Nataraj, Patrick B. Johnston, and Gursel Rafig oglu Aliyev, *Russia's Medium-Term Economic Prospects*, Santa Monica, Calif.: RAND Corporation, RR-1468-RC, 2016, pp. 25–33. On recent "reprivatization" rumors, see Hannah Lilley and Emily Ferris, "Russian Privatization: A Fresh Start," *Forbes*, July 27, 2016.

protect it from both economic instability and potential expropriation. A massive proportion of Russia's economic output is sent abroad by either legitimate or underhanded means rather than being reinvested in the country.[33] Moreover, foreign investors have withdrawn en masse from Russia since the Russian invasion of Ukraine and the resultant international sanctions. Figure 2.3 shows how the inflow of foreign direct investment in the Russian Federation fell dramatically during the height of the Ukraine crisis to levels not seen since the early 2000s, and has only partially recovered. Without a revival of foreign direct investment, it will be difficult for Russia to return to sustainable growth.

But as bad as these problems are, human capital flight is probably an even greater threat to Russia in the long term. During the 1990s, much of Russia's scientific and technical elite fled to the West in search of better prospects, depriving it of the talent and expertise needed to modernize its economy. An astonishing proportion of well-

Figure 2.3
Net Inflows for Foreign Direct Investment in the Russian Federation, 1992–2016



SOURCE: World Bank, undated-b.

[33] Crane et al., 2016, pp. 43–45.

educated young people (almost a third of all urban-living Russians ages 18–24 years old), whose skills Russia desperately needs, have expressed a desire to emigrate.[34]

Effects of Sanctions

International economic sanctions imposed on Russia after its 2014 annexation of Crimea have caused serious problems for the Russian economy, but they have not yet had the desired effect on Kremlin policies. While the direct economic impact of the sanctions is considerably smaller than that of the collapse in oil prices, they seriously aggravate the stresses that cheap oil places on the Russian economy. In addition to sanctions against specific individuals, the United States and other Western nations imposed restrictions on specific Russian banks and firms, denying them access to U.S. debt markets and needed capital equipment. These restrictions limit the options available to Russian institutions and companies for managing their ongoing crises and keeping themselves economically competitive. The sanctions also have a symbolic value within domestic Russian politics that Westerners underappreciate. The Kremlin felt the need to impose sanctions of its own against Western countries, including a total ban on food imports from the United States and European Union (EU). These sanctions imposed costs on foreign nations, but they damaged Russia's own economy as well.[35] The fact that the Kremlin resorted to such measures shows that the economic calculus about sanctions employed by Putin and his inner circle is very different than might be anticipated. The international sanctions have not improved Russian behavior and have furthermore allowed the regime to plausibly blame the West for ordinary citizens' economic distress.

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[34] Crane et al., 2016, pp. 48–50; Irina Sidorova, "Fewer Russians Want to Emigrate, Poll Shows," *Russia Beyond the Headlines*, June 20, 2017.

[35] Matthieu Crozet and Julian Hinz, *Friendly Fire: The Trade Impact of the Russia Sanctions and Counter-Sanctions*, Kiel, Germany: Kiel Institute for the World Economy, Working Paper No. 2059, 2016.

Consequences for the State Budget

Not only are Russian leaders disinclined to substantially increase defense spending above its current level of about 4 percent of GDP, but it is doubtful that they can do so anyway without a dramatic increase in oil prices, radical changes to the way the government funds its activities, or both.[36] Since the early 1990s, the Russian government has financed social spending, such as health insurance and pensions, utilizing what are referred to as *extrabudgetary* funds—that is, money that is not part of the consolidated state budget that funds defense activities. The state budget derives a large part of its revenue from the energy sector, including taxes, export duties, and dividends from state-owned production firms. In recent years, these have provided 40–50 percent of the consolidated state budget.[37] The extrabudgetary mechanisms are insufficient to completely fund social services, particularly the pension system, so the Russian government subsidizes these from the state budget.[38] While oil prices were high, government revenue from energy was sufficient not only to pay for social services and military modernization but also to build up two rainy-day funds—the Russian Reserve Fund and the National Wealth Fund. The collapse in energy revenue since 2014 has compelled the Kremlin to draw down these funds to make up for budget shortfalls. The Russian Reserve Fund held a zero balance in February 2018, while the National Wealth Fund still contained about $66.3 billion. Recent withdrawals from these funds to make up the budget shortfall have been on the order of about $35 billion per year. Wisely, officials seem loath to tap the foreign currency reserves held by the Bank of Russia out of a fear this would destabilize the ruble and

[36] Unless otherwise noted, we use official figures from the Russian government throughout this report because that is what is available. However, it should be noted that these figures might not be accurate.

[37] Svetlana Bocharova, Ol'ga Volkova, and Ivan Tkachev, "Dolia neftegazovykh dokhodov v biudzhete Rossii upala do semiletnogo urovhia," *RBK*, March 24, 2016.

[38] The "social policy" line of the consolidated state budget, which totaled 4.265 trillion rubles in 2015, was predominantly spent (3.864 trillion rubles) supplementing the Pension Fund of the Russian Federation. This sum exceeded the total defense budget for that year (3.181 trillion rubles). Ministry of Finance of the Russian Federation, "Federal Budget of the Russian Federation," Moscow, undated-a.

worsen the country's economic dilemma.[39] Absent significant increases in oil prices, the Russian government will eventually face a politically difficult choice between reducing the real value of pensions and reducing military expenditures, although it might be able to delay this necessity for several years if leaders are willing to drain the National Wealth Fund, privatize some state-owned enterprises, and trim costs elsewhere. Thus, a potentially effective means to restrain Russia's military potential could include limiting Russian state revenue from oil and gas through such measures as economic sanctions or incentivizing competitors to flood the energy market.

Demographic Trends

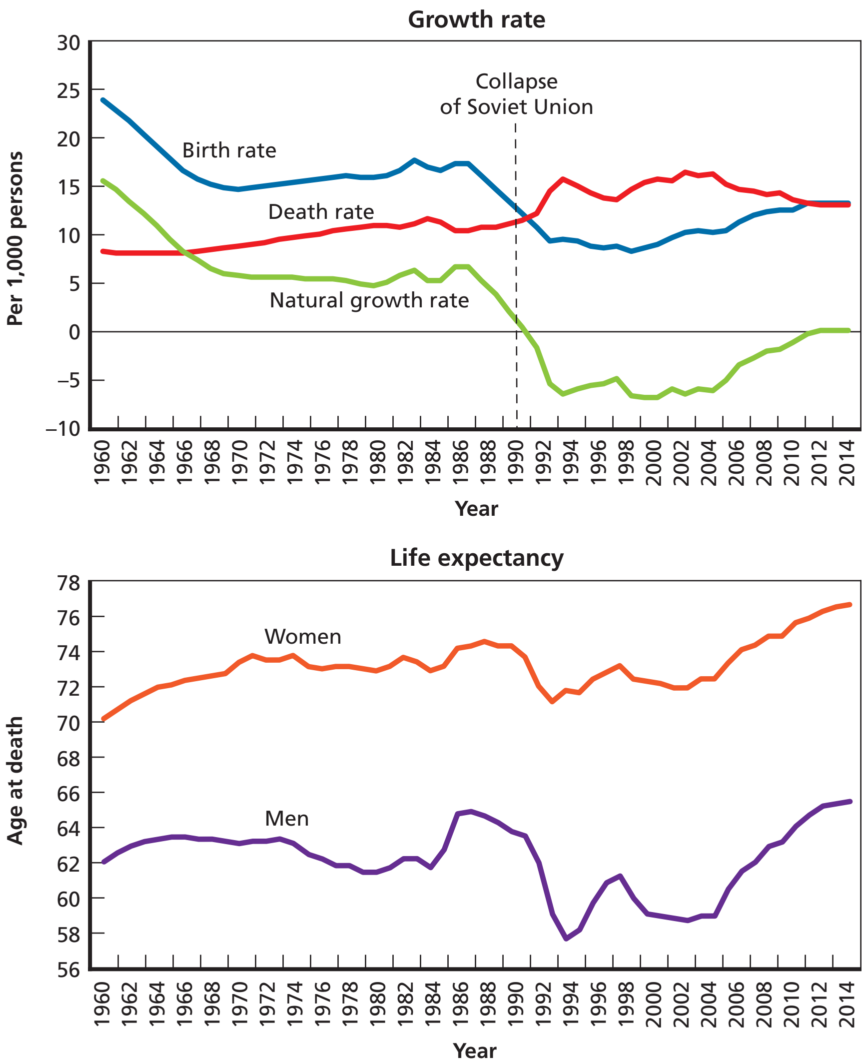
Long-term trends suggest that Russia faces a looming demographic crisis that will place increasing stress on the economy and state budget in future decades. Russian life expectancy dropped precipitously in the 1990s when the Soviet health care system collapsed, but a concerted effort by Putin's government has managed to reverse the worst of these trends. According to official statistics, Russian life expectancies are now higher than they have ever been, even though they are still considerably lower than those in developed Western countries, particularly for men.[40] Russian men tend to die young of such lifestyle-related causes as alcoholism and heart disease. This not only undermines Russian economic productivity but also perpetuates a range of social problems. These challenges are compounded by the baby bust of the 1990s, when Russians had very few children. The Russian government recognized this demographic threat and invested considerable resources in programs to encourage higher birth rates and reduce premature deaths. These efforts seem to have enjoyed some success, as the country has managed to stem its population decline, particularly in conjunction with immigration from other former Soviet republics (see Figure 2.4).

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39 Olga Taras, Ilya Arkhipov, and Evgenia Pismennaya, "Russia Said to Shield Reserves as Putin Taps Sovereign Fund," Bloomberg, June 28, 2016.

40 Russian Federation Federal State Statistics Service (Rosstat), "Ozhidaemaia prodolzhitel'nost' zhizni pri rozhdenii," March 19, 2018.

Figure 2.4
Russian Population Natural Growth Rate and Life Expectancy, 1960–2015



SOURCE: World Bank, undated-b.

But even if the population has stabilized, some shrinkage in the size of the working-age population is probably unavoidable. While Russia's birth rate is high compared with Western Europe and Japan,

and while Russia has experienced some population growth in recent years, the limited number of Russians born in the 1990s is likely to reduce the birth rate again as this cohort reaches childbearing age. Moreover, seemingly inevitable cuts in social spending might undermine the progress that Russia has made over the past decade in terms of improving health care and increasing life spans and birth rates. These phenomena create problems for the Russian military in both the short and long terms. Men now subject to conscription (ages 18–27) are those born during the 1990s, and the limited life span of young Russian men directly affects available reserve forces.[41]

Potential Vulnerabilities

Russia's economic weaknesses are extensive, but the counterintuitive effect of the sanctions regime exemplifies how weaknesses are not the same thing as vulnerabilities that the United States can leverage to its advantage. Recent experience suggests that Russian economic distress would have to be extremely deep to elicit greater cooperation from the Kremlin. It should be kept in mind that Russia's present economic difficulties are actually quite minor compared with the disastrous experience of the 1990s, which older Russians remember. According to official statistics, 29 percent of the Russian population lived in poverty at the time Putin became president, but as of 2016 that number was 13.8 percent.[42] Similarly, unemployment peaked at 14 percent after the 1998 default, and it was at 5.5 percent in 2016.[43] Russian economic weaknesses can be leveraged for cost-imposing strategies, but those costs are liable to be imposed on ordinary Russians rather than the Kremlin. Moscow's capital flight problems, on the other hand, might present an underexploited strategy for extending Russia economically.

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[41] Information Handling Services Jane's, "Demography," *Jane's Sentinel Security Assessment—Russia and the CIS*, Englewood, Colo.: IHS Global Limited, April 25, 2016b.

[42] Rosstat, "Chislennost' naseleniia s denezhnymi doxodami nizhe velichiny prozhitochnogo minimum v tselom po Rossii i po sub"ektam Rossiiskoi Federatsii," December 20, 2017b.

[43] Rosstat, "Uroven' bezrabotnitsy naseleniia po sub"ektam Rossiiskoi Federatsii, v srednem za god," April 4, 2017a.

Facilitating the flow of both financial and human capital from Russia to the West could not only weaken the current regime by depriving it of resources but also bolster the economies of the United States and its allies at the same time.

Table 2.2 presents some broad areas of Russian economic vulnerability and some illustrative U.S. moves to exploit them.

Contemporary Russian Politics

If the Soviet Union of the 1970s could be characterized as "real existing socialism,"[44] as its propagandists claimed, then present-day Russia might be termed a real existing autocracy. While Russian leaders understand that rampant corruption and poor institutionalization weaken the Russian state, their efforts to combat these challenges have been half-hearted and abortive. During the tenure of President Medvedev, the Kremlin attempted to evolve a more institutionalized variant of Putin's political and economic system (i.e., modernization), but these reforms have been scaled back since Putin returned to the presidency in 2012.[45] In contemporary Russia, the spoils go to the victors, and Putin's close associates reap the benefits of his rule.

Putin and His Rivals

Putin is the essential man in Russia's personalized politics. Despite his comparatively sparing use of political violence, at least compared with much of the Soviet era, he has accumulated a larger share of personal power than any Russian leader since Stalin. Furthermore, Putin's Russia has no institution comparable to the Soviet Communist Party to act as a brake on presidential authority. Putin's party, United Russia, is a party of power that serves the president, rather than the other way

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[44] This is a reference to a Leonid Brezhnev-era term. For a Soviet explanation of this term, see E. D. Mordzhinskaia, Iu. E. Volkov, and V. I. Tsapanov, *Real'nyi sotsializm v SSSR i ego burzhuaznye fal'sifikatory* [*Real Existing Socialism in the USSR and Its Bourgeois Falsifiers*], Moscow: Mysl', 1977.

[45] Dmitry Trenin, "Russia's Conservative Modernization: A Mission Impossible?" *SAIS Review of International Affairs*, Vol. 30, No. 1, 2010.

Table 2.2
Current Economic Vulnerabilities of the Russian Federation

Vulnerability	Strategic Exploitability by United States	Potential Cost to Russian Government of U.S. Extension Strategy	Potential Impact on Russian Population of U.S. Extension Strategy	Potential Blowback to United States and Its Allies from U.S. Extension Strategy
Financial capital flight	Considerable but already target of sanctions regime	Reduced total revenues	Economic difficulties that could reduce living standards	Economic distress for investors and trading partners
Human capital flight	Considerable	Reduced human capital for defense and civilian needs	Loss of human and technical capital that could undermine long-term Russian economic prospects	Emigration of pro-Western Russians that might consolidate anti-U.S. attitudes among the population
Resource dependency	Uncertain but potentially considerable	Reduced state revenue	Economic difficulties that could reduce living standards	Low commodity prices that could adversely affect some U.S. strategic partners
Demographic crisis	Limited; economic distress likely to deepen existing problems	Decline of military age, working age, and total population	Population decline	Could legitimize official hostility to the United States

around.[46] The country's political process is dominated by informal patronage networks centered on a limited number of influential figures, with the president as the ultimate arbiter. Russia's extensive bureaucracies mask its poorly institutionalized political process, and when the patronage networks come into conflict, this must be resolved by senior political leaders, often Putin himself.[47] The country's legislature, the State Duma, has only a limited ability under the Russian Constitution to act as a check on the executive, and it has demonstrated little inclination in recent years to exercise even that. Furthermore, the most recent Russian presidential election in which either the incumbent or his handpicked successor stood a real chance of losing was in 1996.

While Putin can be ruthless, he is a savvy politician with a gift for co-opting or coercing potential rivals. Over the course of the 2000s, influential local politicians were coaxed to join Putin's United Russia party and become part of the president's patronage network, helping him consolidate his influence throughout the country.[48] At the same time, Putin is willing to go to great lengths to eliminate threats to his rule. Unlike many of the Yeltsin-era oligarchs, who accepted Putin's dominance, Boris Berezovsky and Mikhail Khodorkovsky attempted to defy Putin, only for the former to be forced into exile and the latter to be imprisoned.[49] Putin's authoritarian tendencies belie the fact that he is both a moderate and a pragmatist within the context of historical Russian politics. Eschewing the extreme nationalist and communist ideologies that bookend the Russian political spectrum, Putin has generally maintained a public reputation as a sensible moderate. He has consis-

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[46] Andrew Konitzer and Stephen K. Wegren, "Federalism and Political Recentralization in the Russian Federation: United Russia as the Party of Power," *Publius: The Journal of Federalism*, Vol. 36, No. 4, 2006.

[47] Thomas F. Remington, "Patronage and the Party of Power: President–Parliament Relations Under Vladimir Putin," *Europe-Asia Studies*, Vol. 60, No. 6, 2008.

[48] Vladimir Gel'man, "Party Politics in Russia: From Competition to Hierarchy," *Europe-Asia Studies*, Vol. 60, No. 6, 2008; Grigorii V. Golosov, "Co-Optation in the Process of Dominant Party System Building: The Case of Russia," *East European Politics*, Vol. 30, No. 2, 2014.

[49] Daniel Treisman, "Putin's Silovarchs," *Orbis*, Vol. 51, No. 1, 2008.

tently enjoyed high approval ratings for his entire political career, and they have exceeded 80 percent since the seizure of Crimea in 2014.[50]

Political Parties

When Putin first came to power at the end of the 20th century, he ruled without an associated party, instead working with a coalition of sympathetic parties in the State Duma. In 2001, Putin's political allies formed the United Russia party, but Putin himself has never joined it, even during the 2008–2012 period when he was prime minister. United Russia advertises itself as the "president's party" and serves as a home for a variety of schools of thought that compete for influence.[51] In the late 2000s, these included former Russian deputy prime minister Vladislav Surkov's notion of sovereign democracy,[52] which contrasted with the modernization boosted by liberalizing technocrat Medvedev. In recent years, Putin has been supplanting more and more of his earlier associates with *siloviki*—former employees of the security services.[53] This trend should not be overstated, however; many of the figures in Putin's inner circle have been there since his initial ascent to the presidency, including Medvedev and Surkov.

Despite the existence of numerous political parties in Russia, none presents a plausible threat to Putin's power. Unlike the Soviet Communists, Putin finds the existence of opposition parties potentially useful. He wants to appear (and actually be) genuinely popular, so a one-party state would be counterproductive. The Communist Party of the Russian Federation is still the closest thing Russia has to a functioning opposition party, and was a popular protest vote in the 2012 elections for individuals alienated from Putin and his United Russia party. The Communist

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50 Levada Center, "Democracy in Russia: Population Installations," press release, November 8, 2015.

51 Sean P. Roberts, *Putin's United Russia Party*, London: Routledge, 2012.

52 Vladislav Surkov, "Nasha rossiiskaia model' demokratii nazyvaetsia 'suverennoi demokratiei'" ["Our Russian Model of Democracy Is Known as 'Sovereign Democracy'"], United Russia, June 28, 2006.

53 Aaron Bateman, "The Political Influence of the Russian Security Services," *Journal of Slavic Military Studies*, Vol. 27, No. 3, 2014.

Party's aging and unimaginative leadership, however, handicaps its ability to mount a serious challenge to Putin's rule.[54] The social-democratic A Just Russia party, meanwhile, espouses a more market-oriented approach to socialism. The Duma also has a considerable nationalist contingent, most prominently Vladimir Zhirinovsky, the head of the Liberal Democratic Party of Russia. Neither liberal nor democratic, Zhirinovsky's brash populist and anti-Western rhetoric has attracted a considerable number of devoted followers, but many Russians consider him a ridiculous figure. Other than the Liberal Democratic Party of Russia, only one Russian nationalist party, Rodina, currently has representation in the Duma. Putin's efforts to repress the earlier iteration of Rodina in the mid-2000s while co-opting some of its members (most prominently Dmitry Rogozin, who now oversees Russia's military-industrial complex) is indicative of how he tries to quash nationalist threats to his rule while using Russian nationalism to shore it up at the same time.[55]

Russian liberals, meanwhile, have long been marginalized, and their support is mostly limited to a small number of urban intellectuals. None of Russia's liberal parties has had representation in the State Duma since 2003. Moreover, most political opposition is directed toward Putin's domestic policies. Even Russian liberals on the margins of the country's politics rarely make more than muted criticisms of Putin's foreign and defense policies—in considerable part because they freely acknowledge that these policies enjoy widespread support from the population.[56]

Ethnic Minorities and Separatism

Unlike the Soviet Union, whose diverse population only consisted of about half ethnic Russians, this ethnicity accounts for more than 80 percent of the population of the Russian Federation. Large ethnic minorities include Tatars, Ukrainians, Chuvash, Bashkirs, and Chech-

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[54] Luke March, "The 'Post-Soviet' Russian Left—Escaping the Shadow of Stalinism?" in Cameron Ross, ed., *Systemic and Non-Systemic Opposition in the Russian Federation: Civil Society Awakens?* London: Routledge, 2015.

[55] Golosov, 2014.

[56] Marlene Laruelle, "Alexei Navalny and Challenges in Reconciling 'Nationalism' and 'Liberalism,'" *Post-Soviet Affairs*, Vol. 30, No. 4, 2014.

ens, all of whom number well over one million people. While separatist national movements (particularly that of Chechnya) posed the most pressing threat to the Russian government in the 1990s and 2000s, domestic terrorism from the volatile Caucasus region appears to have waned in recent years. At the peak of the insurgency in Chechnya, terrorist attacks were relatively limited in number even though they resulted in large numbers of fatalities. Recent statistics find that both the number of attacks and resulting fatalities are smaller than they were prior to the start of the Second Chechen War in 1999 (see Figure 2.5).

Potential Vulnerabilities

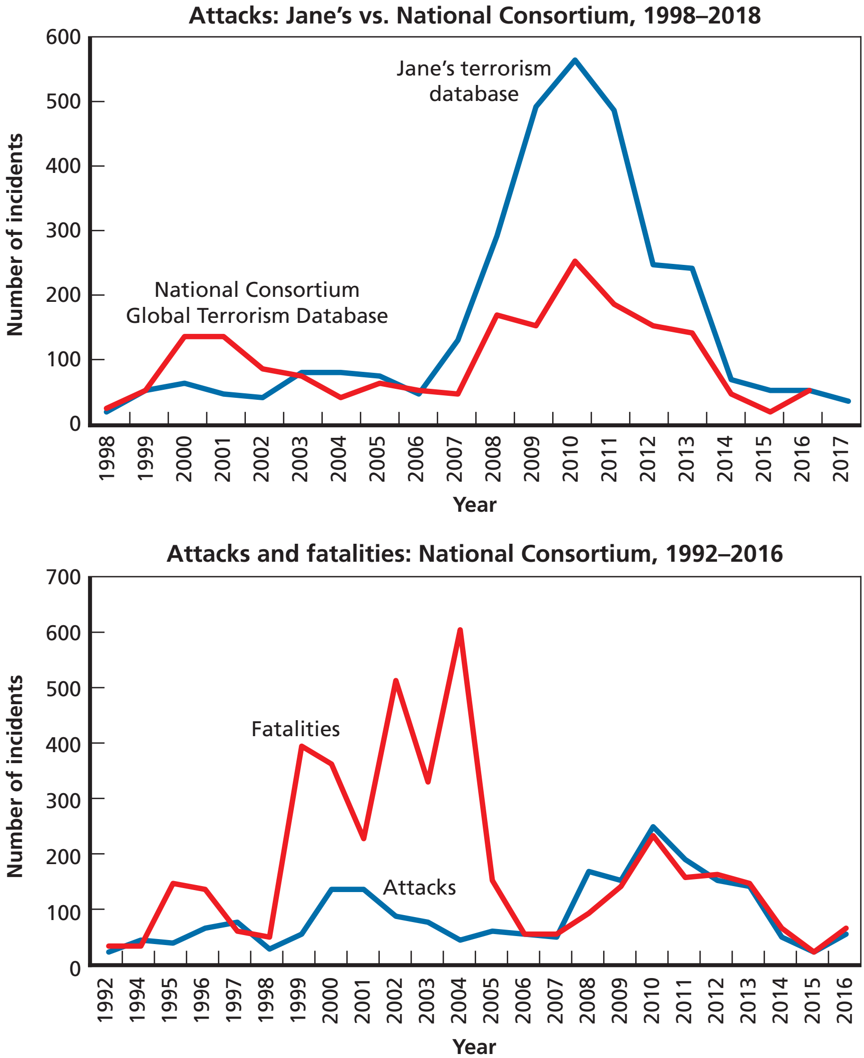
Despite its success consolidating political power in the president's hands, Putin's government still has many vulnerabilities. These include the pitfalls of having eliminated all meaningful political opposition, particularly in light of the parliamentary supermajority enjoyed by United Russia following the 2016 elections. Since United Russia completely dominates the government and can even amend the Russian constitution without the consent of other parties, one can no longer plausibly scapegoat the opposition for unpopular policies. Voting irregularities are rampant in Russian elections—undermining the legitimacy of the Russian government, even if Putin still enjoys high personal approval ratings. The government's failure to rein in graft and corruption during the Medvedev years raises the question of whether the current system is really reformable. Even if it is, Putin's return to the presidency and his rollback of Medvedev's modernization efforts called the legitimacy of the regime into question and alienated educated urban people, igniting the 2011–2012 "winter of discontent."[57] The regime's lack of a coherent ideology is both a strength and a weakness; it enables flexibility but also deprives the regime of subtle ideological justifications for its actions. Finally, Putin himself appears to be increasingly subject to an echo chamber effect as his inner circle of advisers seems to be less diverse than in previous years.

Table 2.3 presents some broad areas of Russian domestic vulnerability and some illustrative U.S. moves to exploit them.

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[57] Wilson, 2015.

Figure 2.5
Number of Terrorist Attacks and Resulting Fatalities in Russia



SOURCE: Jane's by IHS Markit, Terrorism and Insurgency Centre, "Events Since 2009," database, undated; National Consortium for the Study of Terrorism and Responses to Terrorism, "Global Terrorism Database," June 2017.

Table 2.3
Current Domestic Political Vulnerabilities of the Russian Federation

Vulnerability	Strategic Exploitability by United States	Potential Cost to Russian Government of U.S. Extension Strategy	Potential Impact on Russian Population of U.S. Extension Strategy	Potential Blowback to United States and Its Allies from U.S. Extension Strategy
Elimination of real political opposition	Limited; already target of unsuccessful messaging campaigns	Loss of legitimacy	Likely to elicit further crackdowns on free expression	Worsened relations with Russia
Poor reformability of Russian state institutions	Moderate; limits Russian ability to respond to many types of external pressure	Potentially extreme economic or military failure	Economic distress likely to affect ordinary citizens much more deeply than elites	Possible Russian engagement in external aggression to distract from internal problems
Lack of coherent ideology	Minimal; might attempt messaging campaign against multiple threads of Russian political discourse	Might complicate domestic signaling for Russian state	Likely to elicit further crackdowns on free expression	Worsened relations with Russia

Contemporary Russian Foreign Policy

In contrast to his relative success consolidating domestic political power, Putin has struggled to realize his foreign policy ambitions. For many years, the Russian president pursued the goal of uniting former Soviet republics into a trade bloc dubbed the Eurasian Economic Union (EEU). First proposed by Kazakh President Nursultan Nazarbayev in 1994, the EEU evolved from a series of post-Soviet economic organizations and was formally established at the beginning of 2015. Unfortunately for Putin, only five of the 15 former Soviet republics agreed to join, including Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia itself.[58] Putin's determination that Ukraine join the EEU sparked the 2013–2014 political crisis in that country, which concluded with the ouster of comparatively pro-Russian President Viktor Yanukovich. In Russian eyes, this constituted a disastrous color revolution of the sort the Kremlin had sought so hard to forestall. Putin exploited the brief power vacuum to seize the Ukrainian province of Crimea and annex it to the Russian Federation, sparking international outrage and an international sanctions regime that only intensified after Russia's intervention in East Ukraine that helped weaken an already-tottering Russian economy. While Russia gained Crimea, it lost much more—trade, legitimacy, and respect—globally, if not at home. Critically, even the friendly countries of Russia's near abroad, such as Belarus and Kazakhstan, tried to distance themselves from Moscow after Putin demonstrated a willingness to employ military force to expand Russian territory at its neighbors' expense.

Objectives

Russia has two overwhelming foreign policy objectives. The first of these is the prevention of color revolutions leading to increased Western influence in any additional former Soviet republics. Particularly after the 2011–2012 protests in Moscow, Putin's government fears that

[58] Andrej Krickovic, "Imperial Nostalgia or Prudent Geopolitics? Russia's Efforts to Reintegrate the Post-Soviet Space in Geopolitical Perspective," *Post-Soviet Affairs*, Vol. 30, No. 6, 2014.

these events threaten the stability of the regime. The Kremlin has signaled its willingness to resort to extreme measures, including military force, to prevent or counteract such events and to preserve friendly governments in neighboring capitals, notably in Belarus. Moscow's second and more nebulous foreign policy objective is to perpetuate Russia's status as a major global power. The Russian government has invested vast resources on projects that demonstrate its global influence but make a dubious contribution to the country's strategic interests, such as the 2014 Sochi Olympics and its campaign in Syria.

Declining Relations with the United States

Particularly over the past five years, Kremlin leaders have concluded that the United States under Barack Obama was their implacable adversary. The U.S. response to the 2011–2012 street protests in Moscow convinced Russian leaders that the Obama administration hoped they would be overthrown. The December 2012 passage by the U.S. Congress of the Magnitsky Act, which aimed to punish officials deemed responsible for the 2009 death in prison of Russian lawyer Sergei Magnitsky by forbidding their entry into the United States and their use of U.S. banking institutions, further alienated the Russian government. The State Duma retaliated by ending the adoption of Russian children by Americans and banning a number of U.S. citizens supposedly guilty of human rights violations from entering Russia.[59] The 2013–2014 Ukraine crisis and annexation of Crimea led to international condemnation, the expulsion of Russia from the Group of Eight (G-8),[60] and the imposition of economic sanctions that sent Russia's already-teetering economy into a serious recession. Once again, however, the Russian government felt the need to retaliate with countersanctions.[61]

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59 Emma Gilligan, "Smart Sanctions Against Russia: Human Rights, Magnitsky and the Ukrainian Crisis," *Demokratizatsiya: The Journal of Post-Soviet Democratization*, Vol. 24, No. 2, 2016.

60 G-8 was an intergovernmental political forum that lasted from 1997 until 2014, with the participation of major industrialized countries in the world that viewed themselves as democracies. Members were Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States.

61 Crozet and Hinz, 2016.

Russia's deepening involvement in Syria and its brutal air campaign in support of dictator Bashar al-Assad, which substantially targets U.S.-supported Syrian rebels, drew additional condemnation from the United States. Relations between the two countries now appear to be the worst they have been in the post-Soviet period.

Methods

Russia employs both diplomatic carrots and sticks toward the United States to advance its foreign policy agenda. The former includes cooperation with the United States and other major powers on such issues as combating international terrorism and nuclear proliferation. Although Russia's shared interest in managing these threats explains much of the Kremlin's willingness to work with Washington on these issues, it has shown an openness to making what Russian leaders consider serious concessions in the hope that their Western counterparts will respond in kind. The most extreme example of this is probably Russia's seeming acquiescence to NATO expansion during the Yeltsin and early Putin years, which Kremlin leaders considered a massive concession that they ultimately came to regret.[62] A more recent example of a concession the Kremlin soon regarded as a serious mistake was the 2011 decision to allow United Nations (UN) authorization of the NATO intervention against Moammar Gadhafi's government in Libya.[63] Putin and his advisers feel that Western governments do not reciprocate adequately and have increasingly resorted to aggressive, belligerent diplomacy instead.

Thanks in considerable part to the international legacy it inherited from the Soviet Union, the Russian Federation has many goads to interfere with the foreign policy objectives of its rivals. Moscow's possession of the UN Security Council veto allows it to both prevent that body from passing any resolutions inimical to Russian interests and influence the West by threatening to veto its resolutions. Russia

[62] Michael Rühle, "NATO Enlargement and Russia: Discerning Fact from Fiction," *American Foreign Policy Interests*, Vol. 36, No. 4, 2014.

[63] Yf Reykers and Niels Smeets, "Losing Control: A Principal-Agent Analysis of Russia in the United Nations Security Council's Decision-Making Toward the Libya Crisis," *East European Politics*, Vol. 31, No. 4, 2015.

has also sought to punish the West by refusing to comply with international agreements or withdrawing from them. Moscow pioneered this approach with its decision to cease complying with the Conventional Armed Forces in Europe (CFE) Treaty in the aftermath of the 2004 round of NATO expansion, but it has recently grown much more aggressive in its willingness to resort to this tactic.[64] In late 2016, Putin announced that his country would cease implementation of the Russia-U.S. Plutonium Management and Disposition Agreement, signaling that he was now willing to compromise some aspects of nuclear arms control in pursuit of diplomatic leverage and implicitly threatening that Russia might withdraw from more-important agreements, such as the Intermediate-Range Nuclear Forces (INF) Treaty.[65] Similarly, Russia's withdrawal in November 2016 from the International Criminal Court demonstrated its waning commitment to international institutions.

Along with conventional diplomacy, Russia also cultivates foreign proxies to maintain its influence abroad. While Syrian dictator al-Assad is Moscow's most prominent client at the moment, Russia also supports subnational political figures with funding and influence operations. A key weapon in Moscow's foreign policy arsenal is the increasing ambition and apparent success of Russian influence operations, which have grown from conventional media (such as the television channel Russia Today) to include systematic leaks of hacked documents intended to embarrass and compromise foreign adversaries.[66] Finally, the Kremlin has demonstrated its willingness to resort to armed force. The risk and expense of Russian military involvement in Ukraine and Syria, moreover, demonstrate that real resolve underlies Putin's diplomatic maneuvering.

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64 Mark R. Wilcox, "Russia and the Treaty on Conventional Armed Forces in Europe (CFE Treaty)—A Paradigm Change?" *Journal of Slavic Military Studies*, Vol. 24, No. 4, 2011.

65 United States of America and the Union of Soviet Socialist Republics, Treaty on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty), December 8, 1987.

66 Geir Hågen Karlsen, "Tools of Russian Influence: Information and Propaganda," in Janne Haaland Matlary and Tormod Heier, eds., *Ukraine and Beyond*, Cham, Switzerland: Springer International Publishing, 2016.

While Western analysts disagree whether Russia has really integrated the concept of information warfare into its strategic doctrine, recent events indicate that Moscow is employing propaganda and disinformation with some regularity.[67] Russian government propaganda is directed at both domestic and foreign audiences and, in both cases, is often designed to confuse rather than convince the intended recipients. Sowing doubt is much easier than changing minds, and doing the former can serve Russian interests by disrupting or discouraging coordinated action. The Kremlin controls broadcast television, which is still the dominant media in the country, and while it has taken a comparatively hands-off approach to the internet so far, it seems increasingly likely to embrace the kind of online censorship practiced by China.[68]

Potential Vulnerabilities

The success of its influence operations notwithstanding, Russia's foreign policy position remains quite vulnerable overall. Unlike the Soviet Union, which could count on the support of its socialist satellite states, modern Russia has few real allies—and some of those, such as Syria, are arguably net liabilities. Furthermore, Moscow's actions in Crimea and Eastern Ukraine alienated world opinion, leaving it with little sympathy in foreign capitals. Finally, Russia has few positive incentives to induce greater cooperation from skeptical governments since the collapse in resource prices after the 2008 economic crisis rendered its earlier resource diplomacy largely impotent, although it might be trying to regain this leverage.

Table 2.4 presents some broad areas of Russian foreign policy vulnerability and some illustrative U.S. moves to exploit them.

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[67] Roger N. McDermott, "Does Russia Have a Gerasimov Doctrine?" *Parameters*, Vol. 46, No. 1, 2016b.

[68] Regina Smyth and Sarah Oates, "Mind the Gaps: Media Use and Mass Action in Russia," *Europe-Asia Studies*, Vol. 67, No. 2, 2015; Michael Reilly, "Russia Turns to China for Help Building Its Own 'Great Firewall' of Censorship," *MIT Technology Review*, November 29, 2016.

Table 2.4
Current Foreign Policy Vulnerabilities of the Russian Federation

Vulnerability	Strategic Exploitability by United States	Potential Cost to Russian Government of U.S. Extension Strategy	Potential Impact on Russian Population of U.S. Extension Strategy	Potential Blowback to United States and Its Allies from U.S. Extension Strategy
Lack of useful allies	Considerable	Further diplomatic isolation	Reduced political and cultural contacts with Westerners and increased difficulty of international travel	Worsened relations with Russia, attempts to interfere with politics of other countries
Alienation of world opinion	Considerable	Further diplomatic and economic isolation	Economic distress that is likely to affect ordinary citizens much more deeply than elites	Worsened relations with Russia, attempts to interfere with politics of other countries
Low commodity prices and resultant weakness of "resource diplomacy"	Uncertain but potentially considerable	Loss of state revenue	Economic distress that is likely to affect ordinary citizens much more deeply than elites	Low commodity prices adversely affect some U.S. strategic partners

Russian Anxieties

The mismatch between Russian leaders' anxieties and the country's actual vulnerabilities is perhaps Russia's greatest weakness. Instead of devoting their attention to undertaking the economic and institutional reforms essential to maintaining Russia's status as a major power in the long term, leaders continue to spend limited resources to counter the perceived threat from the United States and the West. By correctly identifying these anxieties and crafting initiatives that exploit them, it might be possible to develop effective strategies for extending Russia. Obviously, such strategies can work only if Kremlin leaders respond to them, and that can happen only if these strategies play to the fears of leaders or of the Russian people. The Russian government will not react to very real threats to its security if it does not perceive them, so strategies need to be tailored to the psychology of Russian leaders and of the Russian people rather than just to objective reality.

Color Revolutions and Regime Change

Russian leaders' most obvious anxiety, particularly since the 2011–2012 protests in Moscow, has been the fear of color revolutions both in the near abroad and within the borders of Russia itself. Leaders have responded to this perceived threat with everything from propaganda campaigns to armed force. In many cases, these measures have been counterproductive—for instance, Putin's overly vigorous attempt to keep Yanukovich's government in power in Ukraine arguably drove that country from Russia's orbit for the foreseeable future. The regime's obsession with the possibility of color revolutions imposes considerable intangible costs upon both the Russian state and population. It helps marginalize would-be reformers and stultify Russian political discourse. The state-dominated Russian media's embrace of post-truth disinformation campaigns pollutes the Russian information space and makes it difficult to coordinate the population when the government needs to.

Loss of Great-Power Status

Russian leaders' anxieties about their country losing its status as a major world power offer a more promising target for strategies to extend Russia. While concerns that Russia's global standing could slip in the future are sensible given the country's stagnation, the government's attempts to shore up this standing often appear irrational. Moscow's $100 billion investment in the Sochi Olympics demonstrates that the Kremlin has an economic blind spot for ruinously expensive prestige projects. Although loss of the 2018 World Cup likely would have reduced the Russian government's prestige domestically and internationally, it remains preferable from the standpoint of U.S. interests that Moscow expend its limited resources on such projects rather than shoring up its military, or, even worse, bankrolling military campaigns outside its borders. Increasingly, Russia feels that it must demonstrate its great-power status with shows of force abroad, such as its snap military exercises along its periphery or, perhaps to a lesser extent, its campaign in Syria. While these demonstrations are extremely costly and it might be possible to manipulate Russia into engaging in them more extensively, the nightmarish consequences of Russian bombing of Syrian civilians illustrates the significant moral and humanitarian considerations at play with these options and why this is a questionable strategic choice.

Fear of Direct Attack on Russian Territory

While many Westerners consider the idea of a direct military attack on Russia as not credible in light of the country's massive nuclear arsenal, the Kremlin's military procurement demonstrates that its fear of such an assault is very real. Russia originally developed its formidable air defense systems, such as the S-400, to defend its own heartland from attack by a major military power, presumably the United States. In contrast to the Soviet Union, the Russian Federation does not maintain a massive land army in readiness to invade Western Europe.[69] Land forces are arrayed in depth and can quickly be concentrated as

[69] Unpublished RAND research. We would like to thank Scott Boston, Keith Crane, Olga Oliker, and Brian Nichiporuk for sharing this material.

demonstrated in regular snap exercises. Russian officials and military thinkers also continue to express anxiety about attacks against their territory. While Russian leaders might not necessarily believe all of their own propaganda about U.S. military threats to their nation, they likely would still be willing to increase defense spending in response to a perceived intensification of the threat to their mainland or the survivability of their nuclear forces. However, this reaction might have deleterious effects on the security of the United States and its allies.

As we shall see in subsequent chapters, the Russian leadership's fears of regime change, loss of great-power status, and even military attack, however exaggerated, offer points of vulnerability that may, with care, be exploited either to drive unnecessary expenditures or to encourage better behavior.

CHAPTER THREE

Economic Measures

On June 15, 2017, in his annual call-in engagement with the Russian people, President Putin said that the hard facts showed that "the Russian economy has overcome the recession, and moved into a growth trend."[1]

Already near stagnation in 2013, Russia's economy entered recession in 2014, caused largely by the dramatic decline in global oil and gas prices but also by Western sanctions in response to Russia's aggression in the Crimean Peninsula and in Eastern Ukraine. Russian real GDP fell 2.8 percent year-on-year in 2015 and an additional 0.2 percent in 2016, bottoming out in the first quarter of 2016. The economy then grew 0.7 percent in the first quarter of 2017 compared with the first quarter of 2016.[2] The International Monetary Fund (IMF) reported that growth was expected to return in 2017, with GDP rising 1.4 percent, followed by 1.5 percent annually over the medium term.[3] The World Bank projected slightly lower, but still positive, figures of 1.3 percent in 2017 and 1.4 percent in both 2018 and 2019.[4]

This chapter presents policy options for taking advantage of Russian weaknesses to extend the country economically. These measures would have the goal of diminishing Russia's export earnings and other

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1 Kremlin, *Direct Line with Vladimir Putin*, Moscow, June 15, 2017.

2 IMF, "World Economic Outlook" database, Washington, D.C., April 2017a; World Bank, *From Recession to Recovery*, Washington, D.C.: Russia Economic Report No. 37, May 2017.

3 IMF, "Russian Federation: Staff Concluding Statement of the 2017 Article IV Mission," Washington, D.C., May 19, 2017c.

4 World Bank, 2017.

budgetary and human capital resources available for defense programs and other sources of external influence.

Recent Russian Economic Performance

The recovery that has taken place so far has been spurred by strong policy measures. These have included making the exchange rate more flexible; cutting government spending; recapitalizing banks; and drawing from the Reserve Fund, which accumulates federal revenues from the production and export of oil, natural gas, and oil products during times of surplus for use during times of deficit.[5]

The Russian economy has a number of positive characteristics that bode well for it. The government has low external debt, minimizing its exposure to negative exchange rate movements, and large U.S. dollar export revenues largely from energy sales. Russia has a positive balance in its current account, a broad measure of the trade balance, and the difference between the interest rate on its government bonds and those of more economically advanced countries has narrowed.[6] The unemployment rate actually fell to roughly 5.5 percent in the first quarter of 2017, from 5.9 percent a year earlier. However, the government discourages large enterprises from shedding workers in difficult economic times, so there is hidden underemployment or real wage reduction. Additionally, inflation fell from 15.6 percent in 2015 to 7.1 percent in 2016.[7]

Despite these positive trends, the Russian economy still faces numerous problems and has an uncertain medium-term outlook. Economic problems include falling incomes, increasing poverty, low personal savings and investment, adverse demographics, and low productivity. Although real wages have started growing, nonwage components of

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[5] World Bank, *The Russian Economy Inches Forward: Will That Suffice to Turn the Tide?* Washington, D.C.: Russia Economic Report No. 36, November 2016; Ministry of Finance of the Russian Federation, "Reserve Fund: Mission," Moscow, undated-f.

[6] IMF, *A Broadening Recovery, Central, Eastern, and Southern Europe: A Broadening Recovery*, Washington, D.C., Regional Economic Issues series, May 2017b.

[7] World Bank, 2017.

income have not, particularly pensions and likely self-employment and small-business income as well. This led to a 0.2-percent increase of the number of people in poverty—those with incomes below subsistence level—in 2016. In the fourth quarter of that year, that figure included 19.8 million people, or 13.5 percent of the population (roughly the same percentage of the population as in the United States). While poverty rates increased, investment fell. Fixed capital investment fell 1.2 percent overall in 2016 and also fell in most manufacturing sectors.[8]

Although the employment rate and the labor force participation rate have risen steadily since at least 2011, Russia faces a steady decline in its working-age population, which is likely to limit its growth prospects. In 2015, the country had 64.8 million people of prime working age (between the ages of 25 and 54). By just 2025, that number is expected to fall to 58.7 million.[9] Russia also faces low productivity. Although Putin specified in his Direct Line session in June 2017 that labor productivity was a problem, the issues are actually deeper, extending to total factor productivity, which indicates how efficiently all resources of the economy are combined. An economy with positive total factor productivity that doubled its capital and labor would more than double its economic growth. Russia's has been falling steadily throughout the 2000s, and was near or below zero in 2016.[10] If this is not reversed and is combined with demographic shifts, the Russian economy faces poor long-term prospects. Compounding these poor long-term prospects are a number of structural issues, including corruption, renationalization of parts of the economy starting in the mid-2000s, and weak property rights.[11] Sanctions, in place as of mid-2017 and facing possible expansion, have also created uncertainty regarding savings and investment decisions.[12]

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8 World Bank, 2017.

9 U.S. Census Bureau, "International Data Base," August 2016.

10 World Bank, 2017.

11 Crane et al., 2016.

12 IMF, *Russian Federation: 2017 Article IV Consultation*, Washington, D.C.: IMF Country Report No. 17/197, July 2017d.

Stress on the Federal Budget

One of the main causes of Russia's economic problems is that, as Putin noted to the general public, "Unfortunately, the Russian economy still depends on oil and gas."[13] It is not just the economy that depends on oil and gas; it is the Russian federal budget as well.

Estimates of the extent to which the federal budget depends on oil and gas revenues vary. The Russian Ministry of Finance reports that oil and gas revenues constituted 36 percent of federal revenues in 2016, down from 43 percent in 2015 and 51 percent in 2014.[14] However, this might understate the figure. The share might rise above 80 percent when taking into account revenues generated by exports; natural resource–related taxes, fees, and payments; value-added tax on imported goods that are financed by oil revenues; customs duties and other taxes on those imports; and individual income taxes paid by workers in the industry.[15]

This stress on the national budget can be seen in a three-year budget law for 2017, 2018, and 2019. The law cuts expenditures from 19.8 percent of GDP in 2016 to 16.2 percent of GDP in 2019 and (expected) revenues from 16.3 percent of GDP in 2016 to 15.0 percent of GDP in 2019, narrowing the deficit from 3.6 percent of GDP to 1.2 percent of GDP. These plans suggest that Russia is already economically extended: The biggest spending cuts are planned for national defense, national economy, and housing and communal services, although all spending categories except environmental protection would be cut in real terms.[16] The budget law is based on an oil price of $40 per barrel, so that if oil prices move up, some of these planned cuts could be reversed. The Krem-

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[13] Kremlin, 2017.

[14] Ministry of Finance of the Russian Federation, "Appendix 3.1: Brief Information on the Federal Budget Execution (Bln Rub)," Excel spreadsheet, Moscow, 2017a. Notably, the level of oil and gas revenues has fallen from 7.4 trillion rubles in 2014 to 5.9 trillion in 2015 and 4.8 trillion in 2016. In contrast, the level of non–oil and gas revenues has increased from 7.1 trillion in 2014 to 7.8 trillion in 2015 and 8.6 trillion in 2016. As noted in the paragraph, some of these non–oil and gas revenues might be indirectly tied to the oil and gas industry.

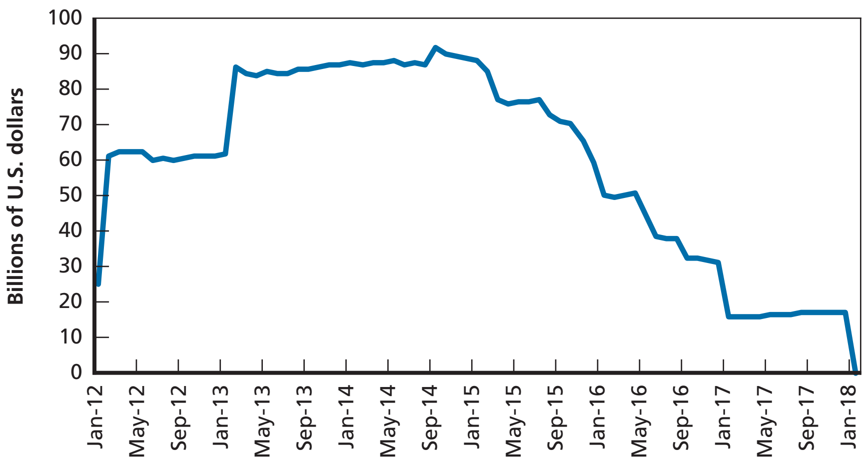
[15] Andrey Movchan, *Decline, Not Collapse: The Bleak Prospects for Russia's Economy*, Moscow: Carnegie Moscow Center, February 2, 2017.

[16] World Bank, 2017.

lin is determined not to run large budget deficits financed by borrowing abroad, in part to avoid foreign dependency.

Another sign of stress on the national budget is the balance of the Reserve Fund (Figure 3.1). From a recent peak of $91.72 billion in September 2014, it fell to $16.0 billion in January 2017.[17] By the end of that year, Russia had spent its Reserve Fund, and the Ministry of Finance said that it would terminate the fund beginning February 1, 2018.[18] Such drawdowns have occurred before. The Fund actually peaked at $142.6 billion in September 2008, just before the onset of the global financial crisis, and then was drawn down to $25.21 billion in January 2011. But rising oil prices subsequent to January 2011 helped Russia replenish it. Now, Russia is planning for flat oil prices.

Figure 3.1
Value of the Reserve Fund, 2012–2018



SOURCE: Ministry of Finance of the Russian Federation, "Reserve Fund," Moscow, undated-e.
NOTE: The Reserve Fund accumulates revenues from production and export of oil, natural gas, and oil products.

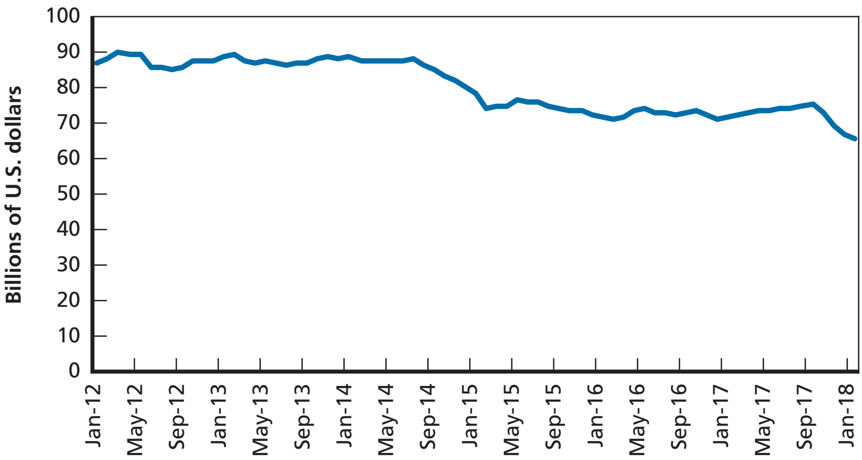
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17 Ministry of Finance of the Russian Federation, "Reserve Fund: Volume of the Reserve Fund," Moscow, June 5, 2017c.

18 "Russia's Finance Ministry Fully Spent Its Reserve Fund in 2017," Reuters, January 10, 2018. This termination did, in fact, occur.

In contrast to the Reserve Fund, Russia has been better able to maintain the National Wealth Fund, although the fund did experience a drop from $87.9 billion in July 2014 to $66.3 billion in February 2018, a decline of 24.5 percent (Figure 3.2). This fund, also funded by oil and gas revenues, is used to support the pension system, including cofinancing voluntary pension savings by Russians and balancing the budget of the Russian Pension Fund.[19] However, it can also be used to support the federal budget, and the 2017 to 2019 budget plan draws from it to fund the deficit.[20] The draw likely will not put pension support at risk, but longer-term draws may. To save money, pensions were indexed below inflation in 2016, and a decline in pension income con-

Figure 3.2
Value of the National Wealth Fund, 2012–2018



SOURCE: Ministry of Finance of the Russian Federation, "National Wealth Fund: Volume," Moscow, undated-d.
NOTE: The National Wealth Fund peaked at $94.34 billion in May 2011.

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[19] Ministry of Finance of the Russian Federation, "National Wealth Fund: Mission," Moscow, undated-c; Ministry of Finance of the Russian Federation, "National Wealth Fund: Accumulation," Moscow, undated-b; Ministry of Finance of the Russian Federation, undated-d.

[20] Stanislav Prokofiev, "Public Finance Management: Agents, Objects, Goals," PowerPoint briefing, Federal Treasury (Russian Federation), Moscow, April 2017; Johanna Melka, "Russia: Out of the Crisis," BNP Paribas, First Quarter, 2017; Ministry of Finance of the

tributed to the growing poverty rate. However, pensions for 2017 were indexed to end-of-year inflation, so they will likely positively affect poverty statistics and income if all goes according to plan.[21]

Along with declines in both funds, Russia has lost foreign exchange reserves. These fell from $441 billion at the beginning of 2012 to $323 billion at the end of April 2017. Most of the decline occurred from the end of October 2013, when foreign exchange reserves were $467 billion, to the end of April 2015, when foreign exchange reserves were $297 billion, a decline of 36 percent. Since then, they have rebounded.[22]

The economic underperformance since 2014 might have contributed to growing unrest in Russia. One nongovernmental organization in Moscow recorded more than 1,100 labor-related protests in 2016.[23] There are some indications that the protests are shifting from economic issues to political and cultural ones. The issue was even raised in Putin's annual call-in session, when a caller noted, "The number of disgruntled people is on the rise. Some are protesting in social media, others are taking to the streets. Is that an opposition? Are you prepared to talk to anyone among them?"[24]

Russia is already extended economically. Although international institutions are projecting renewed growth, there is no guarantee these projections will come to pass. Russia could outperform or underperform. In the remaining sections of this chapter, we discuss measures the United States could take to further extend Russia economically. We discuss measures in four broad areas:

- petroleum exports
- natural gas exports and pipelines

Russian Federation, *Public Debt Management Policy of the Russian Federation for 2017–2019*, Moscow, 2017b.

21 World Bank, 2017.

22 Central Bank of the Russian Federation, "International Reserves of the Russian Federation, Monthly Values, Missions of U.S. Dollars," Moscow, June 30, 2017.

23 Kathrin Hille and Max Seddon, "Russia's Activities Find Their Voice," *Financial Times*, June 11, 2017.

24 Kremlin, 2017.

- sanctions
- Russian brain drain.

All of these measures could be enhanced through cooperation with allies—particularly Europe but also the Middle East and Asia, as will be shown in the section on sanctions. In addition, none of these measures would likely have an immediate effect. Extending Russia economically would likely be a medium-term effort, and most measures would likely cause economic pain to ordinary Russians before the elite and top government officials were affected.

Measure 1: Hinder Petroleum Exports

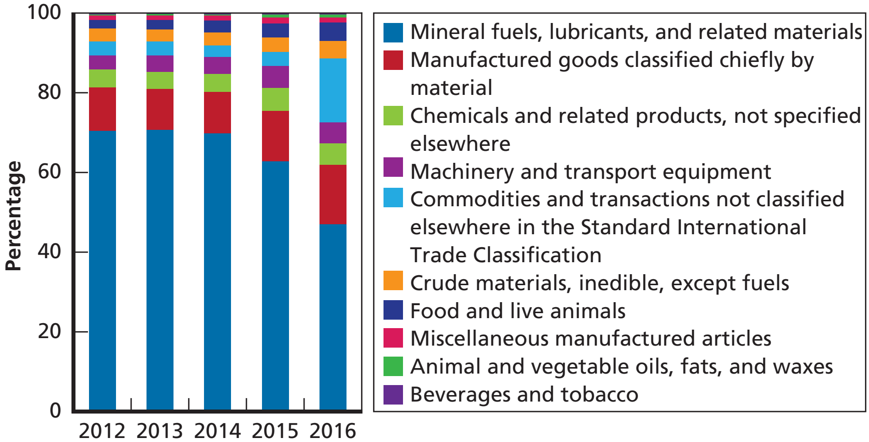
In 2016, Russia's exports of oil, gas, and other fuels totaled $135 billion and constituted 47 percent of all Russian goods exports, a dramatic decline from the 2015 figures, which were $216 billion and 63 percent, respectively. (Figure 3.3). Notably, the share was above 70 percent in 2012 and 2013. This share and revenue decline has been driven completely by declines in prices rather than volumes. Although Russian exports of natural gas to Europe command much attention, Russia's most important commodity export is actually oil. This section discusses extending Russia economically by affecting oil sales. (Oil-related sanctions are covered in the separate section on sanctions.)

From 2010 to 2016, Russia's export revenues from oil and refined oil products averaged almost 330 percent of export revenues from natural gas, ranging from a low of 275 percent in 2015 to a high of 393 percent in 2014, the highest since at least 2000. Revenues also exhibited dramatic declines as world prices fell—total oil export revenue fell from a high of $284.6 billion in 2012 to $119.8 billion in 2016, and total gas export revenue fell from $66.0 billion in 2013 to $31.3 billion in 2016.[25]

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[25] Central Bank of the Russian Federation, "Russian Federation: Crude Oil Exports, 2000–2016 (according to Customs Statistics and Rosstat, Harmonized System, Code 2709)," online database, undated-b; Central Bank of the Russian Federation, "Russian Federation: Natural Gas Exports, 2000–2016 (according to Customs Statistics and Rosstat, Harmonized System,

Figure 3.3
Russian Export Percentages by Broad Sector, 2012–2016



SOURCE: United Nations, "UN Comtrade Database," online database, undated.

Within the category of petroleum exports, crude oil exports constitute the largest portion, ranging between 57 percent and 66 percent of all petroleum exports by value between 2010 and 2016. During the same period, refined products have ranged between 34 percent and 43 percent.

Because of Russia's budget dependence on oil exports, low oil prices have the potential to further degrade the economy and limit the Russian government's actions. Low oil prices in the second half of the 1980s were one of the main factors leading to the collapse of the Soviet Union.[26] Given the Russian state's dependence on oil revenues for its budget, continued low oil prices are likely to extend Russia economically.

The markets for oil and refined products are essentially worldwide, meaning that an increase in supply from one source would lower

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Code 271121)," online database, undated-c; Central Bank of the Russian Federation, "Russian Federation: Oil Products Exports, 2000–2016 (according to Customs Statistics and Rosstat, Harmonized System, Code 2710)," online database, undated-d.

[26] Yegor Gaidar, "The Soviet Collapse: Grain and Oil," American Enterprise Institute for Public Policy Research, April 2007.

prices everywhere.[27] If the United States desires oil prices to remain low to extend Russia economically, it needs to ensure that global production remains high. This is essentially a passive but potentially effective policy. Low world demand resulting from dampened economic growth combined with a technological revolution in the United States regarding oil production (i.e., fracking) has brought down world oil prices dramatically. The spot price of Brent crude, a benchmark price for crude oil, peaked at $143.95 per barrel on July 3, 2008, fell during the global financial crisis, stayed mostly above $100 from early 2011 through late summer 2014, and then fell, hitting a low of $26.01 on January 20, 2016. As of February 2018, it was back above $67.[28] Russian export prices are below those of Brent crude. In the third quarter of 2008, the average export price per barrel in trade with countries not in the Commonwealth of Independent States was $116.26; in the first quarter of 2016, that figure hit a trough of $31.90. By the fourth quarter, it had risen to $45.78.[29]

At the same time, and in part causally related, U.S. oil production rose dramatically, with monthly production of crude oil averaging 5.1 million barrels per day in 2007 and 8.9 million barrels per day in 2016.[30] A large part of this increase, perhaps all of it, is because of the technology revolution that led to hydraulic fracturing being used to produce oil from geologic formations with low permeability (such output is known as *tight oil*).[31] In December 2017, U.S. production of

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[27] Keith Crane, Andreas Goldthau, Michael Toman, Thomas Light, Stuart E. Johnson, Alireza Nader, Angel Rabasa, and Harun Dogo, *Imported Oil and U.S. National Security*, Santa Monica, Calif.: RAND Corporation, MG-838-USCC, 2009.

[28] U.S. Energy Information Administration, "Europe Brent Spot Price FOB," data file, Washington, D.C.: U.S. Department of Energy, February 8, 2018.

[29] Central Bank of the Russian Federation, undated-b.

[30] U.S. Energy Information Administration, "U.S. Field Production of Crude Oil," data file, Washington, D.C.: U.S. Department of Energy, April 30, 2017a.

[31] U.S. Energy Information Administration, "tight oil" entry on "Glossary," webpage, undated.

tight oil totaled about 5.1 million barrels per day, up from 1.3 million barrels per day as recently as May 2008.[32]

There are two policy implications. The United States has little control over global demand, which also affects prices. However, it does have some control over production and supply. If the United States desires to keep oil prices low as a way to extend Russia, then allowing oil production and exports to proceed unimpeded is a good first step. Opening new territories for exploration and drilling could also increase supply. Encouraging the transfer of technologies to produce tight oil, or collaborations between U.S. oil companies and foreign oil companies to produce tight oil abroad, can also contribute to supply increases. Finally, encouraging continued development of producing technologies would help. In 2014, the breakeven price for tight oil production was estimated to be in the $60 to $90 per barrel range. But technological progress has lowered that dramatically. While the breakeven price for parts of the Permian basin in Texas was estimated to be $76 per barrel in June 2014, it was estimated to be only $37 per barrel in August 2016.[33] Thus, technological changes can lead to more oil being brought to market.

Potential Benefits

Encouraging U.S. oil production can have a variety of benefits. Most directly, it would depress prices—and therefore also depress export revenue to Russia. Within the United States, it would lower the price for businesses and consumers. Money that businesses would otherwise spend on oil to fuel their trucking fleets instead could be used, for example, on investments to create jobs, higher wages, or modernized infrastructure or on higher dividends to shareholders. Consumers would be able to take money they otherwise would have spent on oil products and use it to purchase other goods and services, helping expand the domestic and global economies. Most important, these benefits can result from unilat-

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32 U.S. Energy Information Administration, "U.S. Tight Oil Production," data file, Washington, D.C.: U.S. Department of Energy, May 1, 2017b.

33 Robert L. Kleinberg, Sergey Paltsev, Charles K. Ebinger, David Hobbs, and Tim Boersma, *Tight Oil Development Economics: Benchmarks, Breakeven Points, and Inelasticities*, Cambridge, Mass.: MIT Center for Energy and Environmental Policy Research, CEEPR WP 2016-012, December 2016.

eral action on the part of the United States, and most allies and friends in Europe would benefit from lower oil prices.

Risks

Low oil prices present two main risks. First, they would harm U.S. companies that produce oil or support producers and the regions in which those companies are located. Second, low oil prices would depress revenues not only to Russia but also to partner nations that depend on such revenues for their national budgets, such as some of the Gulf states in the Middle East. Furthermore, these low oil prices could hamper the ability of some oil-state governments to either govern or redistribute income to their populations, leading to unrest. Finally, low oil prices typically encourage the use of oil products, potentially exacerbating pollution and associated climate change to at least a small degree.

Likelihood of Success

Maintaining low oil prices through increased production and exports would likely extend Russia economically. Already, the decline in oil revenues is degrading Russia's ability to maintain its federal budget. The federal budget plan for 2017 to 2019 has large cuts in expenditures. Even with those cuts, Russia expects to deplete the Reserve Fund and draw down from the National Wealth Fund, hurting its future ability to ensure that people receive the pensions they were promised. Maintaining low oil prices over several years would push Russia into continuing to make difficult decisions regarding its funding priorities.

Conclusion

Maintaining low oil prices and encouraging the increase of production worldwide would certainly extend Russia economically. It would also benefit the United States and, on those grounds alone, should be pursued. The most important caveat is that prices and production are beyond the full control of a single country, so while the United States could institute policies that encourage those trends, it could not on its own bring them about.

Measure 2: Reduce Natural Gas Exports and Hinder Pipeline Expansions

Although Russia earns far more from oil exports, it is more tightly bound to Europe by natural gas exports. About 40 percent of Europe's natural gas imports are from Russia, but a much higher proportion of Russia's natural gas exports go to Europe, of which the vast majority go to the EU (Figure 3.4).[34] Russia delivers the gas through the Unified Gas Supply system, which includes pipelines that transit Belarus, Ukraine, Turkey, and (going directly to Germany) the Baltic Sea. In 2015, 39 percent of Russian gas to Europe flowed through Ukraine, 30 percent to Germany through the Baltic subsea pipeline known as Nord Stream, and 29 percent through Belarus.[35]

In 2006 and 2009, Russia temporarily cut off gas shipments through Ukraine over geopolitical and commercial disputes with that country, thus cutting Ukrainian transit fees, as well as Ukrainian and European gas supplies. In the wake of those events, Europe has stated a goal of lowering its purchases of gas from Russia and building more resilience within the European system—i.e., being able to move gas throughout the continent rather than having parts of it being dependent on only one supplier. In September 2009, the European Council issued a directive that, among other steps, set up a coordination mechanism in the event of oil or gas disruptions.[36] In February 2016,

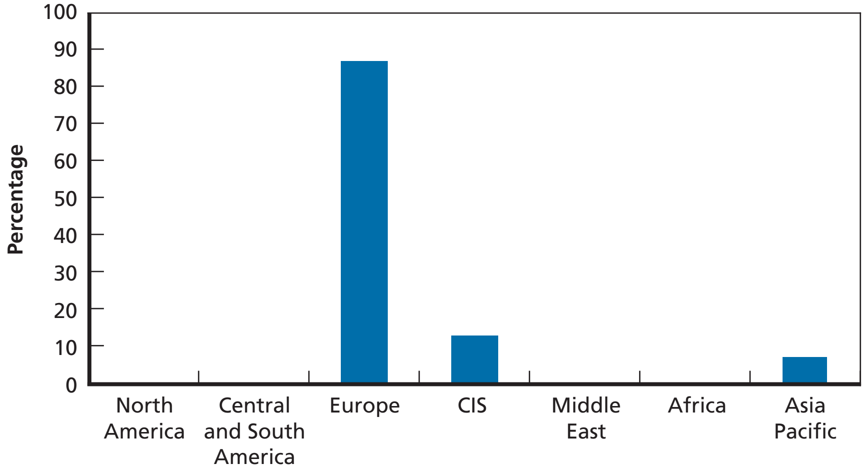
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[34] Konur Alp Kocak, Pasquale De Micco, and Faustine Felici, *The Quest for Natural Gas Pipelines—EU and Eastern Partner Energy Policies: Security Versus Transit Benefits*, Brussels: European Parliamentary Research Service and Directorate-General for External Policies, Study PE 586.626, July 2016. Exactly what proportion of Russian natural gas exports goes to Europe varies by source and by how Europe is defined. The U.S. Energy Information Administration reports that 75 percent of Russia's gas exports go to Europe (U.S. Energy Information Administration, *Country Analysis Brief: Russia*, Washington, D.C.: U.S. Department of Energy, October 25, 2016). Data from BP indicate that about 60 percent goes to identified EU members, and 76 percent goes to identified EU members, Turkey, and "other Europe" (BP, BP *Statistical Review of World Energy June 2016*, London: BP p.l.c., 2016).

[35] Kocak, De Micco, and Felici, 2016, pp. 12, 39. This report also says that about half of Russian gas sent to the EU transits Ukraine.

[36] Eurostat, "Energy Production and Imports," webpage, January 23, 2017a.

Figure 3.4
Import Share Percentages of Russian Gas Exports, 2016



SOURCE: BP, *Statistical Review of World Energy June 2017*, London: BP p.l.c., 2017.
NOTE: The chart shows the proportion of trade movements by pipeline and as liquefied natural gas (LNG) combined. Cases where the data indicated a trade movement of less than 0.05 billion cubic meters (bcm) were counted as zero. North America includes Canada, Mexico, and the United States (excluding territories); Central and South America includes those regions and the Caribbean, Puerto Rico and the U.S. Virgin Islands; Europe includes European members of the Organisation for Economic Co-operation and Development (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, the Former Yugoslav Republic of Macedonia, Georgia, Gibraltar, Latvia, Lithuania, Malta, Montenegro, Romania, and Serbia; the Commonwealth of Independent States (CIS) includes Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine; the Middle East includes the Arabian Peninsula, Iran, Iraq, Israel, Jordan, Lebanon, and Syria; Africa includes only that continent; and the Asia Pacific category includes Afghanistan, Australia, Bangladesh, Brunei, Cambodia, China, China Hong Kong SAR, China Macau SAR, India, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Oceania, Pakistan, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam. In the BP data, the identifiable members of the EU received 80 percent of all Russian gas exports to Europe and 70 percent of all Russian exports worldwide in 2016.

the European Commission released an EU strategy for LNG and gas storage.[37]

In fact, total gas use has declined. This is partly because of the slowdown in the European economy after 2010 and partly because of increased production of renewables in Europe. In 2014, slightly less than half of the EU's energy consumption came from domestic production. Within domestic production, nuclear sources provided the most energy, at 29.4 percent, renewables provided 25.5 percent and solid fuels 19.4 percent, whereas natural gas provided only 15.2 percent.[38] That same year, natural gas constituted 22.6 percent of Europe's gross energy imports, well behind petroleum products, which constituted 62.5 percent. In fact, the share of imported gas in total energy imports has stayed remarkably constant for the decade 2006 through 2015, averaging 23.5 percent and ranging from a low of 22.4 percent in 2006 to a high of 25.2 percent in 2010.[39]

Ultimately, although costly, Europe could adjust to a complete cutoff of Russian gas in the medium to long terms.[40] In practice, however, the Russian share of European gas consumption and imports has actually risen. European gas production is declining, and Russian pipeline gas is less expensive than alternatives, leading to a rising share of Russian gas consumption. LNG from the United States and Australia could provide a substitute for Russian gas delivered by pipeline, but LNG prices in other markets have been higher, and Russian gas industry company Gazprom has adjusted prices to ensure its market share—LNG in Europe has typically cost at least 30 percent more than Russian

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[37] International Energy Agency, *Global Gas Security Review: How Flexible Are LNG Markets in Practice?* Paris, 2016.

[38] Eurostat, 2017a.

[39] Eurostat, "Imports," from "Simplified Energy Balances—Annual Data [nrg_100a]," online database, June 8, 2017c.

[40] F. Stephen Larrabee, Stephanie Pezard, Andrew Radin, Nathan Chandler, Keith Crane, and Thomas S. Szayna, *Russia and the West After the Ukrainian Crisis: European Vulnerabilities to Russian Pressures*, Santa Monica, Calif.: RAND Corporation, RR-1305-A, 2017.

gas.[41] Despite gains in LNG, Russian gas via pipeline is still projected to be the largest single source of gas to Europe through 2035.[42]

In addition, Europe—or at least some of it—is building Nord Stream 2, a major pipeline for Russian gas running parallel to the existing two Nord Stream pipelines, that will bypass Ukraine and all of Eastern Europe, running directly from Russia under the Baltic Sea to Germany. Officials from the European Commission and leaders from nine EU states have expressed concern about the project, specifically that it would increase European dependence on Russia for gas. In addition, it will diminish the shipment of Russian gas through Ukraine, reducing transit fees to that country. However, Germany (the terminus) is in favor of the project, and the EU cannot stop it. The pipeline needs approvals from Germany, Denmark, Sweden, Finland, and Russia because it will pass through the waters of those five countries.[43] At the end of April 2017, Nord Stream 2 AG signed financing agreements with five European energy companies to pay half the project cost; Gazprom remains the only owner of the project company. When completed, the pipeline will have capacity of 55 bcm a year, and construction is expected to run from 2018 through 2019.[44]

A variety of options exist for diversifying European gas supplies and extending Russia economically, although it is not clear how much control the United States has over them. A first step would involve stopping Nord Stream 2. In 2015, the EU imported 410.6 bcm of natural gas, of which 121.7 bcm came from Russia.[45] Nord Stream 2 at full capacity would account for 45 percent of 2015 imports from Russia—14 percent of total imports. Europe would still need to import the gas, and that gas might still come from Russia, but at minimum it would

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41 Elena Mazneva and Anna Shiryaevskaya, "Putin's Russia Seen Dominating European Gas for Two Decades," Bloomberg, March 2, 2017.

42 Shell, *LNG Outlook*, The Hague: Royal Dutch Shell PLC, 2017.

43 Rochelle Toplensky, "Setback for Brussels Challenge to Nord Stream 2," *Financial Times*, March 16, 2017.

44 RNS, "Nord Stream 2 AG Sign Financing Agreements," press release, RNS No. 2223D, April 25, 2017.

45 Eurostat, "Imports—Gas—Annual Data, nrg_124a," online database, February 17, 2017b.

have to pass through other countries, such as Ukraine, which would earn transport fees.

A second option is to encourage new pipelines from other gas sources. Chief among these are the Southern Gas Corridor and EastMed. The Southern Gas Corridor would run from Azerbaijan's Shah Deniz II field to Georgia, Turkey, Greece, Albania, and Italy, with 10 bcm planned for 2020 and 31 bcm by 2026.[46] The corridor is being built in three segments: The first, the South Caucasus Pipeline from Azerbaijan through Georgia, is already finished, and the second, the Trans-Anatolian Pipeline through Turkey, was projected to be operational by June 2018.[47] The third segment, the Trans-Adriatic Pipeline, remains to be built.

With significant gas discoveries in the Eastern Mediterranean, the EU, Cyprus, Greece, Israel, and Italy signed a preliminary agreement in spring 2017 to work on a pipeline linking the four countries. The idea of the EastMed pipeline is to transport 10 bcm of gas from Israeli and Cypriot gas fields to Greece and Italy.[48] In 2014, both Greece and Italy received all their Russian gas (although not all their gas) via Ukraine; this pipeline would help further diversify their imports.[49]

A third option is to make a renewed effort to bring hydraulic fracturing, or fracking, to Europe. As already noted, the U.S. energy revolution was spurred by fracking, which made available large supplies of oil and gas. So far, fracking has proved disappointing in Europe. In part, this is because the geologic formations have only limited potential with today's technologies, and might never have sufficient potential.[50] But it is also partly because several jurisdictions have banned fracking in response to environmental concerns. These

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[46] Agnia Grigas, "As Russia's Gas Market Gets Weaker, Europe Gets Stronger," Euractive.com, January 11, 2017.

[47] "Trans Anatolian Natural Gas Pipeline Project," *Energy, Oil & Gas*, No. 145, June 13, 2017.

[48] Simone Tagliapietra, "Is the EastMed Gas Pipeline Just Another EU Pipe Dream?" *Bruegel*, May 10, 2017.

[49] Kocak, De Micco, and Felici, 2016.

[50] Mason Inman, "Can Fracking Power Europe?" *Nature*, March 1, 2016.

include Bulgaria, Catalonia, the Czech Republic, France, Germany, Scotland, and Wales.[51]

A fourth option is to expand LNG import facilities. There are two basic types of infrastructure related to LNG: liquefaction facilities, which supply the market, and regasification facilities, which receive the supply. A particular type of regasification facility, a floating storage and regasification unit, can be completed within a year of making the initial investment decision.[52] Europe has already started to improve its ability to receive LNG. Between 2010 and the end of 2016, France, Italy, Lithuania, Netherlands, and Poland started six new regasification terminals.[53] At the end of 2017, there were a total of 32 LNG terminals in Europe (27 of which were in the EU), offering a total regasification capacity of 227 bcm, with another 5 bcm per year in capacity.[54] Global import capacity has risen to three times global export capacity.[55] As a result of this import expansion, Poland received its first shipment of U.S. LNG on June 7, 2017.[56]

On the other side of the market, export capacity has expanded and the way that exports are sold has also changed in a way that adds flexibility to the market.[57] The capacity additions have come largely from the United States and Australia, with growth of supply outstripping growth of demand. As of October 2016, 151.3 bcm of new capacity was under construction, to be completed by 2021, with about half of that being built in the United States and another quarter being built

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51 Brigitte Osterath, "What Ever Happened with Europe's Fracking Boom?" *DW*, July 20, 2015; Arthur Neslen, "The Rise and Fall of Fracking in Europe," *The Guardian*, September 29, 2016.

52 International Energy Agency, 2016.

53 King & Spalding, *LNG in Europe 2016/2017: An Overview of LNG Import Terminals in Europe*, Georgia, 2016.

54 Gas Infrastructure Europe, "LNG—The Fuel for the Energy Transition," press release, December 12, 2017.

55 International Energy Agency, 2016.

56 Heather Nauert, "First LNG Delivery to Poland," press statement, Washington, D.C.: U.S. Department of State, June 8, 2017.

57 International Energy Agency, 2016.

in Australia. Liquefaction plants generally take much longer to build than regasification plants, and new supply is expected to level off by 2022. This increase would amount to a 34-percent increase in total liquefaction capacity.[58]

While the United States and Australia have increased supply, the United States and Europe have changed how LNG is bought and sold. Traditionally, because of their cost, liquefaction plants operate under long-term contracts and are not built until a large portion of demand is guaranteed by those contracts. These contracts often have clauses prohibiting resale. Europe banned those so-called destination clauses, allowing resale to customers other than the customer that contracted for supply, and the United States innovated further by not only eschewing destination clauses but also limiting penalties regarding failure to take contracted supplies.[59]

These innovations increase both the supply of natural gas and the flexibility of where it can go. But liquefaction plants are still built based on long-term commitments, so there is much less increase in overall flexibility of the market in terms of ability to produce more quickly to substitute for pipeline supplies. A true spot market for LNG is still in early stages, and flexibility in the destination of LNG supplies in the past has resulted from demand in some receiving countries falling below expectations, enabling other receiving countries to import more than expected.

To benefit more completely from the growth of LNG supply, a number of steps would be useful. First, the United States and Europe could try to foster a more flexible spot market, including increasing spare export capacity. Given the high cost of building liquefaction plants, the mechanisms for doing this are uncertain but could involve subsidies to suppliers or the construction of more storage in supplying countries. One indirect method would be to support the development of supply insurance markets, where a liquefaction plant would

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[58] At the end of October 2016, the world had an LNG export capacity of 445 bcm (International Energy Agency, 2016).

[59] International Energy Agency, 2016.

be built with uncertain sales prospects and then be insured against lack of sales.

Second, Europe would also need much more gas storage, especially near areas of high demand.[60] Storage is generally in high demand when there are large price differences between gas in summer (when prices are low) and winter (when prices are high). Recent small differences have lowered the incentives for gas to be stored, so increasing storage could involve not only building new capacity but also subsidizing the use of that capacity.

The above options all focus on sources of natural gas. A fifth option would be expanding the production and use of renewables through supply- and demand-side incentives, thereby decreasing or eliminating the demand for natural gas. As noted earlier, total European gas use has declined partly because of increased production of renewables in Europe.

Finally, although various actions to limit Russia's dominance of the European gas market are possible, it might be worthwhile to do nothing. This applies to oil as well. As with many other Russian policies, there is a valid argument that Russia's energy infrastructure policies are hurting its economy. If so, the natural way to extend Russia economically would be to let it just continue these policies. Specifically, this view holds that Russia has been investing in large and difficult projects, such as those in the Arctic offshore and the Yamal Peninsula, to spread largesse to politically connected companies, and that major international partners are brought in to build political connections abroad.[61]

Potential Benefits

In terms of extending Russia economically, the main benefit of creating supply alternatives to Russian gas is that it would lower Russian export revenues. The federal Russian budget is already stressed, leading to planned cuts in defense spending, and lowering gas revenues would stress the budget further. An additional benefit would be that Russian

[60] International Energy Agency, 2016.

[61] Ilya Zaslavskiy, "Putin's Art of the Deal," *Berlin Policy Journal*, May 18, 2017.

threats to cut off gas for geopolitical reasons, or even actual cutoffs, would affect far fewer people in the EU and in countries that are or strive to be EU partners, such as Ukraine. Not only would energy security be increased for Europe, individual European residents and their businesses would face a reduced threat level.

Risks

There are three important risks to changing the gas supply relationship. First, it could lower the reliability of gas supplies to Europe. The ongoing dispute over whether to construct Nord Stream 2 illustrates this. Some in the West argue that Russia should be forced to continue to ship gas through Ukraine, a victim of Russian aggression, so that Ukraine could earn up to $2 billion per year in transit fees. But others argue that Ukrainian siphoning and periodic gas price disputes with Russia have made this route less than reliable for both Russia and its European customers. Moreover, U.S. policy has long favored more sources of supply and export routes, to make the global energy market more competitive and resilient.

Second, alternative gas supplies are likely to be more expensive in terms of both infrastructure costs and gas prices. If governments subsidize the infrastructure, they will have to reduce expenditures for other purposes or raise taxes, both of which might create a drag on the economy. Higher gas prices will reduce the ability of Europeans to purchase other goods and services, also creating a drag on the economy.

Third, one of the downsides of working to limit Russian export of energy or other material is that the dependence of Russia on Western markets is, within limits, an element of deterrence—this access would likely be cut in the event of an escalation of tensions or conflict. Cutting Russian access to Western markets in peacetime reduces the scale of the further cuts that would result from conflict and thus the deterrent effect of such a threat. This would argue for restraining the growth of Western purchases from Russia, rather than reducing them.

Western credits to Eastern Bloc countries in the 1980s present an analogous situation. The deteriorating economic conditions of those countries and the benefits they gained through Western loans were

viewed by some in the West as providing leverage over future developments in the region.[62]

Likelihood of Success

Reducing European peacetime consumption of Russian gas has a medium to low likelihood of success. Diversifying away from Russia is expensive, and projects might be difficult to accomplish. The EastMed pipeline will not succeed if it is not cost-competitive with Russian gas, unless subsidized. Furthermore, the suppliers might fail to execute the project, or they might find it more profitable to supply Egypt's growing consumption instead.[63] LNG must still compete with cheaper pipeline gas, so dramatically expanding LNG imports into Europe might also require subsidies.

Furthermore, Germany appears determined to complete Nord Stream 2. Although European Commission officials have challenged the pipeline, the German regulatory agency responsible for that country's infrastructure networks argued that the pipeline was not subject to the EU's energy laws.[64] However, when the U.S. Senate approved tougher sanctions on Russia in June 2017, including on Nord Stream 2, the German foreign minister and the Austrian chancellor argued that "Europe's energy supply is a matter for Europe, not the United States of America."[65] Accordingly, it is difficult to see a way to stop or even limit Nord Stream 2, which might increase European imports from Russia and harm Ukraine and Central European members of the EU as well.

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62 Keith Crane, *The Creditworthiness of Eastern Europe in the 1980s*, Santa Monica, Calif.: RAND Corporation, R-3201-USDP, 1984; Central Intelligence Agency (CIA), Directorate of Intelligence, *The Soviet Bloc Financial Problem as a Source of Western Influence*, National Intelligence Council Memorandum 82-10004, 1982, approved for release through the Historical Review Program of the Central Intelligence Agency, February 25, 1994.

63 Kocak, De Micco, and Felici, 2016.

64 Toplensky, 2017.

65 Henry Foy and Demetri Sevastopulo, "Berlin Hits Back at U.S. Move to Tighten Sanctions on Russia," *Financial Times*, June 15, 2017.

Conclusion

Reducing Russian market power over gas consumption in Europe would certainly extend Russia economically. It would reduce Russian pricing power and could create a situation in which European threats to purchase gas elsewhere could become the new version of Russian threats—and actions—to cut off gas to European consumers. The most important flaw in this area is that creating new, non-Russian gas supplies for Europe would be more expensive than continuing to purchase Russian pipeline gas. In the early 1980s, President Reagan had to retreat when he sought to constrain energy technology exports in an effort to encourage Europe not to become too dependent on Russian gas; any similar effort today might meet the same fate. Therefore, this policy could require both planning to make sure it is as efficient as possible and cost-sharing to make sure that all countries that would benefit would also have an incentive to participate.

Measure 3: Impose Sanctions

In response to Russia's annexation of Ukraine's Crimea, the United States and the EU instituted similar sanctions regimes in March 2014. During the course of the year, with Russia's subsequent invasion of Eastern Ukraine, these expanded substantially. The U.S. program started on March 6 with an executive order blocking the property of specific people involved in Russia's Crimea operation and banning their travel to the United States.[66] The United States then expanded the number of people sanctioned on March 16 and added Bank Rossiya under the executive order issued that day; sanctions were then expanded further with two more executive orders in 2014.[67]

[66] White House, "Blocking Property of Certain Persons Contributing to the Situation in Ukraine," Washington, D.C., Executive Order 13660, March 6, 2014a.

[67] White House, "Blocking Property of Additional Persons Contributing to the Situation in Ukraine," Washington, D.C., Executive Order 13661, March 16, 2014b; White House, "Blocking Property of Additional Persons Contributing to the Situation in Ukraine," Washington, D.C., Executive Order 13662, March 20, 2014c; White House, "Blocking Property

Under these authorities, the United States instituted three types of sanctions:[68]

- **blocking sanctions.** These prohibit any financial, trade, or business transactions between U.S. persons and specific designated individuals and entities.
- **sectoral sanctions.** These included restrictions on providing financing to certain entities in Russia's financial and energy sectors and for the oil sector prohibitions on exporting goods, services, and technology to support exploration or production of deepwater, Arctic offshore, or shale projects. Sectors included in the sectoral sanctions were financial services, energy, and defense and related materiel.
- **new investment bans and trade embargo.** These prohibit new investment in Crimea and any trade with Crimea.

Prominent companies and people sanctioned include Bank Rossiya, VTB Bank, Sberbank, gas producer Novatek, defense company Rostec, Russian Deputy Prime Minister Rogozin, and former presidential chief of staff Sergei Ivanov, among many others.

The EU took similar actions, starting on March 13, 2014. These measures included asset and travel freezes for 150 people and 37 entities; limits to capital-market access for five banks, three energy companies, and three defense companies; a ban on trade in arms; and a ban on exports of dual-use items—i.e., items that could be used for both civilian and military purposes. Like the United States, the EU also banned the export of technologies used for exploration or production of deepwater, Arctic offshore, or shale oil projects. The EU took a number of Europe-specific actions as well, such as canceling a bilateral summit with Russia and blocking economic cooperation through the European Investment Bank, the European Bank for Reconstruc-

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of Certain Persons and Prohibiting Certain Transactions with Respect to the Crimea Region of Ukraine," Washington, D.C., Executive Order 13685, December 19, 2014d.

[68] U.S. Department of the Treasury, Office of Foreign Assets Control, *Ukraine/Russia-Related Sanctions Program*, Washington, D.C., June 16, 2016.

tion and Development (EBRD), and bilateral programs.[69] Before the sanctions, Russia accounted for about one-third of EBRD lending, so ending those loans might have presented a financial risk to the bank. However, the bank redirected its lending to Turkey and Ukraine, and three years later appears to be in strong financial health.[70] Finally, the EU and the United States ended G-8 cooperation with Russia, reverting to the G-7.[71] Australia, Canada, Japan, Norway, and Switzerland imposed sanctions as well.[72]

Estimates of the effects of sanctions vary. One reason these effects are difficult to estimate is because global oil prices collapsed shortly after the sanctions were introduced. However, there was a period when sanctions were in effect before oil prices fell, and evidence from this period indicates that the sanctions increased the cost of capital in Russia. During this period, the spreads between Russian sovereign debt and German bunds widened by 0.9 percentage points.[73]

Sanctions also affected specific targets. ExxonMobil, Shell, and Total suspended cooperation with Rosneft, Gazprom Neft (a Gazprom subsidiary), and Lukoi, respectively, on deepwater, Arctic, and shale projects.[74] The U.S. State Department estimated that sanctioned Russian companies, on average, lost about one-third of their operating revenues, half their asset values, and one-third of their employees compared with

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69 European External Action Service, "EU Restrictive Measures in Response to the Crisis in Ukraine," press release, European Union, Brussels, March 16, 2017; European Union, "Concerning Restrictive Measures in View of Russia's Actions Destabilising the Situation in Ukraine," Council Regulation (EU) No. 833/2014, July 31, 2014.

70 Neil Buckley, "Moscow Accuses EBRD of Becoming 'Tool' of the West," *Financial Times*, May 10, 2017.

71 European External Action Service, 2017.

72 Andrey Gnidchenko, Anastasia Mogilat, Olga Mikheeva, and Vladimir Salnikov, "Foreign Technology Transfer: An Assessment of Russia's Economic Dependence on High-Tech Imports," *Foresight and STI Governance*, Vol. 10, No. 1, April 3, 2016.

73 Crane et al., 2016.

74 Andres Mäe, *Impact of Sanctions on the Russian Oil Sector*, Estonian Foreign Policy Institute, Policy Paper No. 29, March 2016.

nonsanctioned companies. All evaluations noted that the sanctions effects were smaller than the effects of the decline of oil prices.[75]

More broadly, the IMF estimated that the sanctions, and a Russian retaliatory ban on agricultural imports, reduced Russian GDP between 1 percent and 1.5 percent in the short term and up to 9 percent in the medium term. Russia estimated the annual cost to be 2 percent of GDP. However, a number of other factors have proved more debilitating to the Russian economy. These include the steep drop in oil prices, renationalization of numerous companies, and deterioration of the business environment in terms of regulation, lack of property rights, and general lack of rule of law.[76] So although the sanctions have negatively affected Russia, the effect has been modest.

Sanctions have also had indirect effects. One is that global financial institutions have been less active in Russia because they are unsure whether operations not sanctioned today might be targeted in the future. A second indirect effect is that global investors assess higher political risks in Russia as a result of Western sanctions and the deterioration in recent years of Russia's relations with the West.

Notably, the sanctions are in no way comprehensive, nor are they meant to be. For example, they allow Russia to sell government bonds abroad, and the government might use the proceeds to raise financing for companies affected by the sanctions.[77] In fact, Russia issued $3 billion in bonds in May 2016 for the first time since the sanctions.[78] This was followed by up to $6 billion in new sovereign debt in June 2017, denominated in U.S. dollars.[79] Furthermore, only a small portion of

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[75] Sanctions estimates in this paragraph are as reported in Rebecca M. Nelson, *U.S. Sanctions and Russia's Economy*, Washington, D.C.: Congressional Research Service, CRS Report R43895, February 17, 2017.

[76] Crane et al., 2016.

[77] Nelson, 2017.

[78] Max Seddon, Thomas Hale, and Elaine Moore, "Russia Launches First Bond Since Ukraine Crisis," *Financial Times*, May 25, 2016.

[79] Max Seddon, "Russia Issues 10yr and 30yr Dollar-Denominated Debt," *Financial Times*, June 20, 2017.

economic transactions are prohibited. For example, the oil-related sanctions do not affect Russian subsidiaries of Western companies.[80]

Those sanctions that are in effect have had negative impacts on some U.S. companies, most notably oil companies and oilfield services companies. ExxonMobil had to suspend a $700 million Kara Sea exploration venture, in association with Rosneft, and ExxonMobil reported losing $1 billion from its Russian operations. U.S. financial institutions have had to increase spending on compliance, and some U.S. agricultural producers (and many more European producers) have lost business.[81]

In addition, the U.S. and European sanctions are somewhat different. Most importantly, even though both economies placed limits on cooperation regarding deepwater, Arctic offshore, and shale projects, the EU allowed partnerships in place at the time to continue, whereas the United States did not. So, while ExxonMobil has suspended a relevant partnership, Italy's Eni and Norway's Statoil have continued with projects that might have been banned by the United States.[82] More specifically, ExxonMobil has suspended work in the Arctic, deepwater, and shale; Statoil of Norway has suspended work in the Arctic but continued a shale project; BP has suspended a shale project; and Eni of Italy has continued an Arctic and a deepwater project. While the U.S. sanctions are enforced by the U.S. Treasury's Office of Foreign Assets Control, described by at least one lawyer as "much-feared, powerful, and active," enforcement of European sanctions is left to the individual countries, which might vary in their aggressiveness.[83]

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80 Mäe, 2016.

81 Nelson, 2017. Some European companies have been affected as well, although we do not have dollar figures for their costs. These include Shell, which suspended a shale oil project with Gazprom Neft; Total, which suspended a shale oil project with Lukoil; and Statoil, which had an Arctic project stalled (Mäe, 2016; Ed Crooks and Henry Foy, "US Oil Groups Feel Russia Sanctions Freeze More Than Europeans," *Financial Times*, June 19, 2017).

82 Bradley Olson and Jay Solomon, "Despite Sanctions, Russia's Oil Industry Powers On," *Wall Street Journal*, May 8, 2017.

83 Crooks and Foy, 2017.

In fact, the biggest flaw with any sanctions regime is the inclusiveness of the countries sanctioning Russia. For example, the Russian Direct Investment Fund (RDIF), a $10 billion fund established in 2011, continued to actively form a variety of partnerships with Middle Eastern and Asian countries after the sanctions started in 2014.[84] Those countries are simply not participating in the sanctions. In fact, as of spring 2017, RDIF noted that it had attracted $30 billion in foreign capital since its founding. This total includes at least $16.5 billion, and possibly more, from Middle Eastern countries, including Bahrain, Israel, Kuwait, Qatar, Saudi Arabia, Turkey, and the United Arab Emirates (UAE).[85] All of these except the Israeli investment were from public-sector entities, and most are close U.S. partners in the region.

Major investments have also been received from China, India, Japan, and Vietnam.[86] A partnership with the state-owned China Investment Corporation was the earliest announced international

[84] RDIF, "About Us: Overview," webpage, undated. The authors thank RAND policy analyst Becca Wasser for first bringing the activities of the RDIF to their attention.

[85] All of the following investments were announced after sanctions were instituted: RDIF, "RDIF and Mumtalakat to Strengthen Economic and Investment Cooperation Between Bahrain and Russia, Mumtalakat CEO to Join International Advisory Board of RDIF," press release, April 29, 2014; RDIF, "RDIF and Israelis Co-Invest in Joint Agricultural Projects," press release, March 9, 2017b; RDIF, "Kuwait's Sovereign Wealth Fund Doubles Its Investment with RDIF to $1 Billion," press release, November 10, 2015b; RDIF, "RDIF Attracts Major Investment from the Middle East into the Russian Economy: Saudi Arabia's Sovereign Wealth Fund to Commit USD 10 BN," press release, July 7, 2015a; RDIF, "RDIF and Türkiye Wealth Fund Create Russia-Turkey Investment Fund," press release, March 3, 2017a; RDIF, "Russian Direct Investment Fund and Mubadala Establish Co-Investment Fund," press release, June 20, 2013a; RDIF, "DP World and the Russian Direct Investment Fund Form a New Joint Venture," press release, January 21, 2016a; "Qatar Fund Commits $2 Billion Investment to Russia: RDIF CEO," Reuters, May 23, 2014.

[86] All of the following investments were announced after sanctions were instituted: RDIF, "RCIF and Tus-Holdings to Create Russia-China Venture Fund," press release, November 7, 2016d; RDIF, "NIIF and RDIF to Establish a $1BN Russian Indian Investment Fund," press release, October 15, 2016c; RDIF, "RDIF and JBIC Agree Key Terms and Conditions for Russia-Japan Investment Fund," press release, April 27, 2017c; RDIF, "Russian Direct Investment Fund and Vietnamese State Capital Investment Corporation to Create a $500 Million Russian-Vietnamese Investment Platform," press release, May 16, 2016b.

partnership, with both the Russian and Chinese entities contributing $1 billion to a joint fund in 2011.[87]

By far, the largest single investment was a $10 billion commitment by the Saudi Arabian Public Investment Fund, announced in July 2015.[88] This fund is expected to receive the proceeds from Saudi Arabia's initial public offering of shares in the Saudi Aramco energy company and to play an important role in the financing of the Saudi Arabia reform efforts described in the country's *Vision 2030* document. Once the Public Investment Fund receives the Aramco proceeds, it is expected to be the largest sovereign wealth fund in the world, depending on the success of the public offering.[89] In another major investment, about six months after initial sanctions, the Abu Dhabi Department of Finance agreed to invest up to $5 billion in a joint fund with RDIF.[90]

Some of these co-investments are likely to have positive effects on the Russian economy. For example, DP World of Dubai is providing 80 percent of the funding in a partnership with RDIF to invest in marine ports, dry ports, and logistics infrastructure in Russia.[91] RDIF and the Israeli LR Group are investing in dairy farming and milk processing in Russia.[92] Tus-Holdings of China, the former Tsinghua University Science Park Development Center, is investing in Russian startups and technology companies that could develop further in China.[93]

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[87] RDIF, "Russian Direct Investment Fund and China Investment Corporation Announce the Russia-China Investment Fund," press release, October 11, 2011.

[88] RDIF, 2015a.

[89] Kingdom of Saudi Arabia, *Vision 2030*, Riyadh, 2016; Simeon Kerr, "Sleepy Saudi Sovereign Wealth Fund Wakes and Shakes Global Finance," *Financial Times*, January 28, 2017.

[90] RDIF, "Abu-Dhabi's Department of Finance Contributes up to $5 Billion to Create Partnership with RDIF for Investing in Russian Infrastructure Projects," press release, September 12, 2013b.

[91] RDIF, 2016a.

[92] RDIF, 2017b.

[93] RDIF, 2016d.

Economic cooperation goes beyond investments. In September 2014, the U.S. Treasury put sanctions on Rostec, a Russian state-owned holding company for the defense industry. Specifically, Treasury prohibited U.S. entities from transactions involving new Rostec debt of more than 30 days' maturity.[94] In February 2017, Rostec chief executive officer Sergey Chemezov announced that the UAE and Russia had agreed to jointly develop a fifth-generation light fighter.[95] In addition, Moscow has set up an information-sharing organization with other cities to share experiences about how to form financial centers and use new financial technologies. Formed in 2016, the organization's initial partners included Frankfurt-Mainz and Paris, in EU and NATO-partner countries Germany and France, respectively. As of April 2017, Dubai was considering joining. One implied reason for forming the organization was the difficulty of transactions with New York and London following sanctions.[96]

Even in the energy industry, the sanctions have had only limited effect because of the possibility of nonparticipating countries stepping in. China provides the best example of this. Sanctions on Novatek meant the company would not be able to raise Western financing in U.S. dollars for a $27 billion LNG project on the Yamal Peninsula. However, Chinese entities agreed in 2016 to provide $12 billion in loans in euros and renminbi.[97] This came shortly after the Chinese Silk Road Fund agreed to take a 9.9-percent ownership stake in the project, bringing the ownership structure to 50.1 percent for Novatek, 20 percent for France's Total, 20 percent for China's CNPC oil company, and

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[94] U.S. Department of the Treasury, "Announcement of Expanded Treasury Sanctions Within the Russian Financial Services, Energy and Defense or Related Materiel Sectors," press release, September 12, 2014.

[95] David Donald, "Abu Dhabi IDEX Show Highlights Key UAE Developments," AIN Online, February 23, 2017.

[96] Michael Fahy, "UAE Foreign Direct Investment: Dubai and Moscow Markets Look to Share Financial Information," *The National*, April 3, 2017.

[97] James Marson, "Russian Natural Gas Project Gets Funding from China," *Wall Street Journal*, April 29, 2016.

9.9 percent for the Silk Road Fund.[98] In addition, Russia has turned to China for equipment. However, this is not an ideal solution—although cheaper than Western equipment, it is lower quality and tends to break down more.[99]

Nonetheless, instituting new sanctions is certainly an option for extending Russia economically. In August 2017, President Trump signed a new Russia sanctions bill that cleared in Congress with overwhelming support.[100] While Trump included "caveats" signaling that he might try to alter implementation, the bill turned existing sanctions implemented by executive order into law, which makes them more difficult (though not impossible) to halt. Furthermore, the bill extended sanctions to the railway, shipping, and metals and mining sectors; tightened limits on financing; instituted new sanctions on large investments in Russian privatization; and instituted new sanctions on the investment in or sale, lease, or provision of goods, services, technology, information, or support for the construction of Russian energy export pipelines. This last measure specifically targeted any country in the world, including European countries, involved with the construction of the Nord Stream 2 pipeline, described earlier. Aside from broadening and deepening sanctions applied to the actions of U.S. entities, the new measures would be extraterritorial and could even cause the United States to oppose loans to Russia from such international financial institutions as the IMF and World Bank.[101]

The 2017 legislation provided one set of options for enhancing sanctions. If the United States wished to extend Russia economically via sanctions, there are a number of other steps it could take. One

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98 Novatek, "Novatek and China's Silk Road Fund Conclude Selling 9.9 Percent Stake in Yamal LNG," press release, March 15, 2016.

99 Olson and Solomon, 2017.

100 U.S. Senate, S. 722, Countering Iran's Destabilizing Activities Act of 2017, Title II, Sanctions with Respect to the Russian Federation and Combating Terrorism and Illicit Financing, Washington, D.C., 115th Congress (2017–2018), June 15, 2017; Peter Baker and Sophia Kishkovsky, "Trump Signs Russian Sanctions into Law, with Caveats," *New York Times*, August 2, 2017.

101 S. 722, 2017.

would be to deepen or broaden the existing sanctions. Deepening could involve extending the energy-related sanctions beyond deepwater, Arctic, and shale exploratory projects to include operating ventures and other aspects of Russia's energy economy, including technology. Although there are substitutes, Western technology is superior. Russian refineries largely use imported Western technology; Chinese technology will not lead to improvements in the quality of output.[102] Deepening existing sanctions could also involve extending the bank-related penalties to a larger set of Russian banks. This would make access to dollars more difficult for a larger share of businesses and could weaken the Russian banking sector.

Broadening sanctions could involve punishing any Russian entity that deals with any entity in Donbass or Luhansk. A narrower version would be to sanction any Russian entity that deals with the reported 46 Ukrainian-registered companies that the so-called Luhansk People's Republic and Donetsk People's Republic have nationalized.[103]

A second way to broaden sanctions would be to cover more traded goods. In 2016, the United States accounted for only 3.3 percent of Russia's total exports (up from 2.4 percent in 2015) but 6.1 percent of manufactured goods exports (up from 5.9 percent in 2015). That same year, U.S. goods constituted 6.1 percent of Russia's goods imports (down from 6.3 percent in 2015), of which the largest sectors were chemicals and related products (6.1 percent), minerals and other crude materials products (5.5 percent), and machinery (5.3 percent).[104] Similarly, the sanctions could cover more sectors, as the 2017 law envisions. Sanctions could also be targeted at all manner of technology transfers, especially those related to energy and the military; one analyst suggests this would hurt the Russian economy in the long run.[105]

A third way to broaden the sanctions would be to include Russian direct investments in the United States. In 2015, Russian investments

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[102] Mäe, 2016·

[103] Yuri Zoria, "What Assets Did Russia's Puppet Republics Seize from Ukraine? Full List," *Euromaidan Press*, March 4, 2017.

[104] United Nations, undated.

[105] Movchan, 2017.

in operating businesses and real estate in the United States totaled almost $4.6 billion.[106]

These options have so far involved only U.S., Russian, and Crimean entities. The United States could also institute extraterritorial or secondary sanctions. For example, the United States could sanction any company in the world that partnered with Russia to develop deep-water, Arctic offshore, or shale energy resources, or sanction any entity that co-invested with the RDIF or that partnered in any way with Russian energy or defense companies.

The largest step the United States could take would be to institute deeper or even comprehensive financial sanctions on Russia. This would prohibit the use of the U.S. banking system by Russia or any Russian entity, as well the use of the U.S. banking system by any entity—such as European banks—that dealt with Russia or Russian entities. Such a move would effectively cut Russia and Russian businesses off from use of the U.S. dollar, which constitutes the largest medium of exchange for international trade and investment transactions. As of December 2016, 62 percent of the external debt of Russia was denominated in dollars, of which the largest portion was attributable to Russian banks and businesses rather than the government.[107] As of May 2017, the Russian government and Russian entities held nearly $100 billion of U.S. debt.[108] The deepest sanctions would be similar to those placed on Iran before it agreed to the Joint Comprehensive Plan of Action, the international agreement aimed at its nuclear program.

There are a variety of mechanisms for implementing such sanctions. One is through Section 311 of the USA PATRIOT Act. Under this section, the Treasury could declare a foreign country, financial institution, type of account, or class of transactions as a “primary money laundering

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[106] Technically, this is the international direct investment position of Russia in the United States on a historical-cost basis (U.S. Bureau of Economic Analysis, “Foreign Direct Investment in the U.S., Foreign Direct Investment Position in the United States on a Historical-Cost Basis,” Balance of Payments and Direct Investment Position Data, online database, undated-a).

[107] Central Bank of the Russian Federation, “External Sector Statistics,” online database, undated-a.

[108] Patrick Gillespie, “Russia Is Buying Up U.S. Debt,” CNN Money, May 18, 2017.

concern" and prohibit any U.S. bank from maintaining a correspondent account with that declared entity.[109] Even under that measure, the foreign entity could continue to do business in the United States, such as buying real estate. In the past, however, such actions have caused most other legitimate banks worldwide to end transactions with the declared entity. Alternatively, Treasury's Office of Foreign Assets Control could sanction an entity and end not only any correspondent relationship with a U.S. bank but also any activities of that entity in the United States or with U.S. entities worldwide. This would likely lead other banks worldwide to shun the sanctioned entity.

There would certainly be loopholes to any such sanctions. Russia could tap overseas deposits of dollars and arrange to have dollar payments channeled through non-U.S. banks or arrange to have international payments made in other internationally traded currencies. These would provide some relief, but on a limited basis. Using offshore dollars could increase liquidity risk. While it is likely that the Federal Reserve would provide assistance in the case that a New York bank could not meet its dollar-transfer obligations, it might be less likely that a foreign central bank would help a foreign bank meet dollar obligations.[110]

U.S. dollar markets are much deeper and more liquid than those of other currencies, and demand for those other currencies would drive up their price, causing relative declines in the ruble and other currencies. Furthermore, even with pools of dollar deposits outside the United States, the vast majority of international dollar transfers go through the United States, likely because the vast majority of dollar deposits are held in the United States. Although admittedly dated, one report noted in 2002 that 95 percent of all U.S. dollar payments between countries moved via the U.S.-based Clearing House Interbank Payments System.[111] Participants must be resident in the United States and include

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109 Stephen Heifetz and Evan Sherwood, "Those Other Economic Sanctions: Section 311 Special Measures," *Banking Law Journal*, September 2014.

110 George F. Thomas, "Offshore U.S. Dollar Clearing Systems: A Risk Businesses Can No Longer Afford," GT News, October 13, 2009.

111 Federal Reserve Bank of New York, "CHIPS," webpage, April 2002.

U.S. banks or U.S. branches of foreign banks; there were about 50 members in 2012.[112]

In all cases, as we will discuss later, sanctions would be more effective if other countries were to join. But that also would make instituting sanctions more difficult, as U.S. and foreign interests regarding Russia might not align.

Potential Benefits

Decades of empirical analysis provide evidence that sanctions can have serious consequences on a target country. Especially when smaller countries are the targets, trade sanctions can decrease trade anywhere from very little to up to about 90 percent.[113] For example, during the sanctions period against apartheid South Africa from 1986 to 1991, South African exports to the United States and the EU fell by 33.4 percent and 27.2 percent, respectively.[114] Financial sanctions tend to have more serious effects. One analysis of U.S. sanctions on Iran through about 2000 found that the annualized total effect of financial and investment sanctions was $637 million for 2000 and 2001, compared with $140 million in losses per year due to trade sanctions.[115] Besides declines in GDP, financial sanctions can cause higher inflation, higher borrowing costs, and capital flight.

Almost all analyses show that multilateral sanctions are more effective than unilateral sanctions.[116] This is even the case with limited sanctions, rather than comprehensive sanctions. For example, one

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[112] Bank for International Settlements, "Payment, Clearing and Settlement Systems in the United States," in CPSS—Red Book, Basel, Switzerland: Committee on Payment and Settlement Systems, 2012.

[113] A good overall review of sanctions can be found in Gary Clyde Hufbauer, Jeffrey J. Schott, Kimberly Ann Elliott, and Barbara Oegg, *Economic Sanctions Reconsidered*, 3rd ed., Washington, D.C.: Peterson Institute for International Economics, 2007.

[114] Simon J. Evenett, "The Impact of Economic Sanctions on South African Exports," *Scottish Journal of Political Economy*, Vol. 49, No. 5, 2002.

[115] Akbar E. Torbat, "Impacts of the U.S. Trade and Financial Sanctions on Iran," *World Economy*, Vol. 28, No. 3, 2005.

[116] Jiawen Yang, Hossein Askari, John Forrer, and Hildy Teegen, "U.S. Economic Sanctions: An Empirical Study," *International Trade Journal*, Vol. 18, No. 1, Spring 2004.

analysis of G-7 trade found that limited, unilateral U.S. sanctions did not demonstrate a recognizable effect on U.S. trade with the target. However, limited multilateral sanctions decrease both U.S. and G-7 trade with the targeted country by 56 percent.[117]

This means that if the United States were to further broaden and deepen sanctions, it could gain the most benefit by coordinating those sanctions with other countries. U.S. financial sanctions would certainly hurt the Russian financial and business sectors, not to mention wealthy, well-connected Russians doing business internationally. However, such sanctions carried out in coordination with the EU (and the United Kingdom after it exits the EU), Switzerland, Singapore, Dubai, and other major financial centers would shut down Russia's transactions with most of the world. Getting China and Hong Kong on board would be even better, but that currently appears unlikely.

Risks

There are three notable risks regarding broadening sanctions. First, U.S. businesses would be hurt. While the Russian direct investment position in the United States is $4.6 billion, the U.S. direct investment position in Russia is $9.2 billion.[118] U.S. business activity with Russia would be hampered, potentially but modestly affecting U.S. jobs and profits, as well as any future investments that could be made with those profits.

A second, related risk would be that the sanctions could be ineffective if other countries do not join. The United States would have used one tool in its kit for international influence, potentially limiting future use of that tool for influencing Russia. More importantly, companies of foreign countries will have gained advantage over U.S. companies, so that Russia might be only lightly harmed or not harmed at all.

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[117] Raul Caruso, *The Impact of International Economic Sanctions on Trade—An Empirical Analysis*, Milan: Università Cattolica del Sacro Cuore di Milano (Catholic University of the Sacred Heart of Milan), 2003.

[118] U.S. Bureau of Economic Analysis, "U.S. Direct Investment Position Abroad, U.S. Direct Investment Position on a Historical-Cost Basis," Balance of Payments and Direct Investment Position Data, online database, undated-b.

Finally, instituting unilateral sanctions, especially comprehensive financial sanctions, could damage foreign businesses and economies. This could lead to less support among businesses for sanctions in allied countries, and it could lead to reluctance on the part of allied governments to cooperate with the United States. One of the hallmarks of the comprehensive financial sanctions on Iran was that they were multilateral, vastly increasing their effectiveness. Current sanctions against Russia provide evidence that other countries are not as strict as the United States. This divergence might widen if the United States were to move forward without careful coordination.

Likelihood of Success

Significantly deeper economic sanctions would likely extend Russia economically, but that success would be limited unless other countries joined in. If other major economies joined a new sanctions regime, the Russian economy could be damaged over the short run and the long run. Over the short run, inability to access foreign currencies would limit trade and investment and would probably drive the economy back into recession. Over the longer run, lack of investment and technology transfer would limit Russia's ability to grow economically and diversify its economy, pushing it to rely more on exports of conventional (and depleting) supplies of oil and gas. Already, slow economic growth has caused Russia to write in defense budget cuts for 2017 to 2019. These would likely be compounded with deeper multilateral sanctions. However, in the absence of expanded Russian aggression abroad, the United States would have difficulty persuading other countries to take extra measures against Russia, such as shutting down financial transactions.

Conclusion

Sanctions have had a negative, although limited, effect on the Russian economy. Natural gas production appears to have been unaffected, and oil production has actually risen. Natural gas production was at 66.1 bcm in January 2014, 60.9 in January 2015, and 62.3 in January 2016. Likewise, crude oil production actually hit a peak in 2016,

at 547.3 million tonnes (up from 523 million in 2013) before declining slightly in 2017 to 546.7 million tonnes.[119]

Nonetheless, if the sanctions are maintained, they are likely to have a long-term deleterious effect on Russia. Russia's fields are declining; to boost production, Russia needs to continue exploring and then producing in deepwater and the Arctic, and it needs to develop its shale industry. But these will be more difficult to develop without Western expertise and technology.[120]

These conclusions apply to other sanctions as well. One analysis found that Russia had high import ratios of numerous technology goods from sanctions-imposing countries, including aircraft, medical and optical equipment, engines and turbines, and pharmaceutical goods.[121] The import of technology goods plays a role in technology development, international competitiveness, and, ultimately, economic growth. Limiting trade in those goods is therefore likely to degrade Russia's economy in the medium to long term.

Overall, deeper sanctions would likely cause meaningful harm to the Russian economy. They could also have a disproportionate negative effect on ordinary Russian citizens while elites could maneuver to protect their assets. Notably, sanctions would also likely harm the economies of the sanctioning country, although not as much. For maximum effect, they should be multilateral. Instituting unilateral sanctions would extend Russia economically but also could alienate important U.S. allies, friends, and partners.

Measure 4: Enhance Russian Brain Drain

Russia's population is aging rapidly. In 2015, the median age was 39.1, with the median male age 36.2 years and the median female age

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[119] Ministry of Energy of the Russian Federation, "Production of Natural Gas and Crude Oil," Statistics, online database, Moscow, undated. As of this writing, the Ministry of Energy does not have the 2017 or 2018 data on natural gas posted.

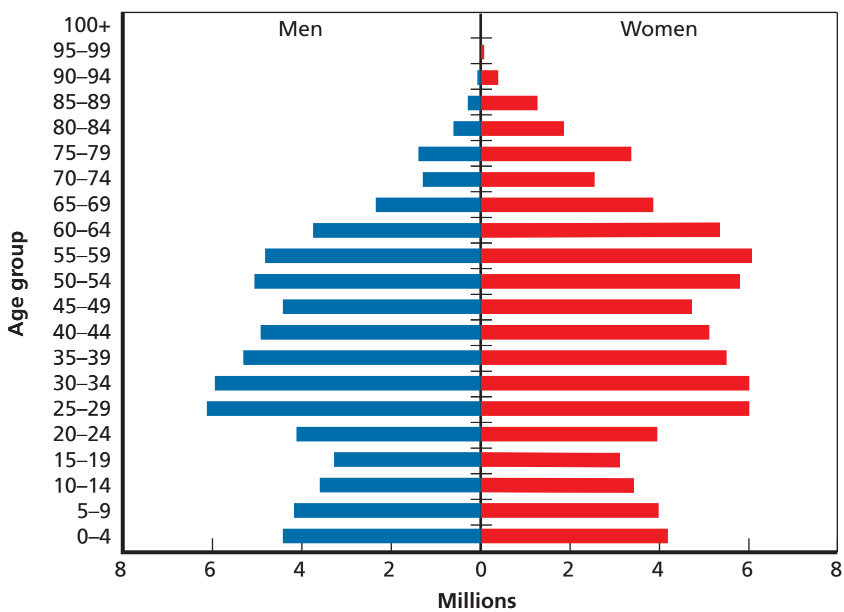
[120] U.S. Energy Information Administration, 2016.

[121] Gnidchenko et al., 2016.

42.1 years (Figure 3.5). The median age is expected to rise steadily to 45.9 in 2035, and then to peak at 46.6 in 2039 (42.3 for men and 50.0 for women).[122] The proportion of prime working-age adults (those ages 25 to 54) in the population was 45.5 percent in 2015 and expected to fall below 40 percent in 2033. In contrast, the median age in the United States in 2015 was 37.8 and was expected to hit 41.0 in 2035. The proportion of prime working-age adults in the U.S. population was actually lower in 2015, 39.8 percent, and expected to decline slightly, but this is in large part the result of a higher proportion of people younger than 25 (32.6 percent in the United States in 2015, compared with 26.8 percent in Russia).

Declines in the working-age population are usually associated with slowdowns in economic growth, but this also depends on the level

Figure 3.5
Russia's Population Pyramid, 2015



SOURCE: U.S. Census Bureau, 2016.

[122] U.S. Census Bureau, 2016.

of productivity of the labor force. Higher productivity can counteract the decline of raw numbers of people working and is closely related to levels of education. However, if people with high levels of education exit the country, the economy could be impaired over the long term. A dearth of available data makes it difficult to assess the level of emigration by highly educated Russians. That said, the rate of emigration from Russia has been climbing, from a low of 32,000 in 2009 to a peak of 353,000 in 2015, the highest level since 1993. In 2016, however, that number dropped slightly, to 313,000.[123] The majority of emigrants go to countries of the former Soviet Union, excluding the three Baltic countries, suggesting that many entered Russia from those countries in the first place or are taking advantage of easier visa or immigration requirements. In 2016, 82 percent of Russian emigrants headed to those countries.

On the other hand, immigration into Russia is higher than emigration from there. In 2016, the immigration tally was more than 575,000, but 89 percent of immigrants came from the countries of the former Soviet Union—again, excluding the Baltics.[124] As with emigration, immigration peaked in 2015 at 599,000, the highest since 1996.

More important than raw emigration data are the numbers of young Russians seeking education outside Russia. This number is growing: In 2000, 34,500 Russians sought tertiary education abroad, and of that number, 24,500 went to North America and Western Europe; in 2016, those numbers were 56,900 and 36,200, respectively.[125]

Whether Russia is losing valuable human capital—so-called brain drain—is uncertain. Getting a true picture would require accurate emigration data broken down by skill and education, as well as data on time spent away from Russia and intentions to return to Russia. Absent such data, there is evidence that official data undercount the number of people leaving Russia and that 93,000 Russians with higher education

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123 Rosstat, "Attachment to the Yearbook: Socio-Economic Indicators of the Russian Federation: 1991–2016," *Russian Statistical Yearbook 2017*, undated.

124 Rosstat, undated.

125 United Nations Education, Scientific, and Cultural Organization, Institute of Statistics, "Global Flow of Tertiary-Level Students," webpage, undated.

exited between 2002 and 2011.[126] However, that is only a small portion of the working-age population and even of university graduates. In the 2011–2012 academic year, almost 6.5 million students were registered at higher education institutions.[127]

Still, raw numbers might not be the correct metric. One analyst suggested that those leaving include small- and medium-business owners, entrepreneurs, and scientists—all groups that are needed to spur Russian growth.[128] Without hard numbers, it is difficult to establish that outflows of people in those professions will cause a serious problem for the Russian economy. In fact, one analyst considered a leading expert on the issue of human capital has written that even though the net talent flow is negative for Russia, emigration is not large enough to damage the economy.[129]

Regardless, Russia, does face a different human capital problem: its deteriorating education system. The World Economic Forum, in its *Human Capital Report 2016*, ranked Russia as 28th overall in its human capital index. By age group, the ranking was the same for those of prime working age, 25 to 54, and even higher—14th—for those ages 15 to 24. However, for members of the population ages 0 to 14, the ranking was only 53rd, below Sri Lanka, Kazakhstan, Albania, and even Tajikistan (which ranked 52nd).[130]

If the United States wished to extend Russia in the realm of human capital, it could take a number of steps. One measure would be to institute immigration programs to attract Russian entrepreneurs, scientists, and university graduates. Such programs could include easing entry

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[126] Denis Abramov, "Russia's Brain Drain Worse Than Previously Believed—Report," *Moscow Times*, October 6, 2016.

[127] Tempus Programme, *Higher Education in the Russian Federation*, Brussels: Education, Audiovisual and Cultural Executive Agency, European Commission, July 2012.

[128] Andrew S. Bowen, "Russia's Next Crisis: A Brain Drain?" *The National Interest*, July 28, 2014.

[129] Leonid Bershidsky, "Russia Is Not Dying from a Brain Drain," *Bloomberg View*, July 6, 2016. Bershidsky is the founding editor of *Vedomosti*, a Russian business daily, and the Russian opinion website, Slon.ru. He left Russia with his family for Germany in 2014.

[130] World Economic Forum, *The Human Capital Report 2016*, Cologny/Geneva: Insight Report, 2016.

requirements under immigrant visa laws, providing working capital or other financing programs for businesspeople, or helping connect scientists to U.S. universities and providing funding to help them set up laboratories and attract junior researchers. A second measure would be to attract university students and try to retain them. Doing so would add to the number of highly educated people in the U.S. labor force and provide at least a small measure of improvement to labor productivity and multifactor productivity, both of which have slowed in recent years. The United States could also attempt to degrade human capital in Russia by taking negative measures, such as ending all academic cooperation and prohibiting Russian students from attending U.S. universities. However, this would accomplish little unless most other Western countries took similar measures, and that is unlikely.

Potential Benefits

Immigrants in general have been shown to contribute to innovation and technological change in the United States.[131] Other countries have benefited by immigration of Russian scientists, engineers, and students: The most powerful illustration of that is the track record of Israel, which attracted more than 810,000 people with Russian Jewish roots in the 1990s. These immigrants were an important part of Israel's high-technology revolution from the 1990s through today.[132] However, the number of people from the former Soviet Union who emigrated to Israel was much larger than the United States is likely to attract, and those large flows likely constituted a one-time event following the fall of the Soviet Union. For the United States, attracting talented Russians is likely to have a modest positive effect, especially in the informa-

131 Annalee Saxenian, *Silicon Valley's New Immigrant Entrepreneurs*, San Francisco, Calif.: Public Policy Institute of California, 1999.

132 Vladimir (Ze'ev) Khanin, chief scientist, Israeli Ministry of Immigrant Absorption, "Aliyah from the Former Soviet Union: Contribution to the National Security Balance," position paper, presented on behalf of the Israeli Ministry of Immigrant Absorptions [sic] to the 10th Annual Herzliya Conference, Jerusalem, February 2010. Admittedly, because Israel's policy was to accept all Jewish immigrants, it took in a wider cross-section of immigrants than just those in the technology sector.

tion technology industry because of Russia's large supply of potentially mobile software and computing engineers.

Risks

There are few risks to attracting skilled people to the United States. One possible risk is that some of the scientists or engineers could be Russian agents seeking to gain access to restricted U.S. technology or information. A second is that bringing in more skilled workers could widen income inequality in the United States. If a skilled worker increases the productivity of a less-skilled worker, that should result in higher incomes for both, but an income decline would occur for a less-skilled worker simply displaced by a skilled worker operating alone or paired with technology. Finally, a larger number of skilled people could cause more competition in that segment of the labor market, putting downward pressure on wages among those with higher skill levels. However, similar to the benefits of this measure, the number of potential Russian immigrants would likely be too small to have a noticeable effect on wages, labor market performance, or income inequality.

Likelihood of Success

The United States certainly has an ability to attract residents from Russia. From 2013 through 2015, slightly more than 28,600 people from Russia gained lawful permanent U.S. resident status. However, this was only 0.9 percent of all such people gaining that status.[133] The United States could attract more, but the amount is unknown. A concerted program by the United States, the EU, and other allied nations could attract many more than the United States alone, but the numbers involved would be unlikely to have a noticeable effect on the Russian economy in the short term. Moreover, Russia could block emigration, although doing so might risk increasing domestic discontent within Russia. Even in the long term, any effect on the Russian economy is likely to be small.

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[133] U.S. Department of Homeland Security, Office of Immigration Statistics, *2015 Yearbook of Immigration Statistics*, Washington, D.C., December 2016.

Conclusion

Encouraging entrepreneurial and highly skilled Russians to exit Russia and settle in the United States is likely to positively affect the United States, although any effect would be difficult to find in the data. Russia would likely experience similarly small negative effects, and those would manifest over the long term. Certainly, if such an effort were made on a large scale—such as by encouraging millions of university graduates to emigrate—the Russian economy could be harmed. The recipient countries would also likely be helped, and those benefits could manifest over the medium term or even short term. But that would also be extraordinarily costly for the recipient countries, both in terms of any incentives they provided and any transition costs the economy experienced while it absorbed the new labor-market entrants. So, immediate net benefits would be low and could even be negative. The United States, through its open markets, its ability to assimilate immigrants, its large and dynamic economy, and its (usually) welcoming attitude toward immigrants already encourages brain drain from around the world. That policy could be enhanced toward Russia but is unlikely to have large effects.

Recommendations

This chapter has presented policy measures in four domains that could economically extend Russia (Table 3.1). There are certainly other actions beyond those four domains that the United States and its allies could take. For example, there is credible research that the Russian state colludes with criminal networks not only to carry out some Russian policies but also to gather pools of capital that can be used for policy implementation.[134] A much more aggressive—and perhaps more politically attractive—multinational effort against such networks with an emphasis on sanctioning and prosecuting Russian officials who work with and benefit from them could remove some revenue from

[134] Mark Galeotti, *Crimintern: How the Kremlin Uses Russia's Criminal Networks in Europe*, London: European Council on Foreign Relations, April 2017b.

Table 3.1
Findings for Economic Measures

Measure	Benefits	Costs and Risks	Likelihood of Success
Hinder petroleum exports	High	Low	High
Hinder natural gas exports and pipelines	High	Medium	Medium
Impose sanctions	High	High	High
Enhance Russian brain drain	Low	Low	Low

Russia's clandestine activities. Likewise, this chapter did not consider actions that would be much closer to war, such as embargoes. The four domains that are considered are at the heart of Russia's economy and are likely to have effects, although in some cases in the medium to long term.

In terms of minimizing risks and maximizing benefits, actions to lower oil export revenues and the institution of new sanctions would likely extend Russia economically the most. Russia needs oil export revenues to maintain its government operations, including military activities abroad and the provision of social services and pensions at home. Limits to oil revenues would require Russia to make difficult choices, as it has had to do already. However, global oil prices and production are beyond the full control of a single country, so while the United States could institute policies to encourage those trends, it could not bring them about on its own.

Deepening sanctions would also likely degrade the Russian economy and could do so to a greater extent and more quickly than maintaining low oil prices, provided the sanctions are comprehensive and multilateral. However, sanctions would also likely hurt ordinary Russians and cause domestic economic harm, however limited, to the United States (and to any European nations that might join). Furthermore, sanctions would need to be coordinated multilaterally to be truly effective and to avoid alienating allies and partners. Therefore, their effectiveness would depend on the desire of other countries to extend Russia. That desire appears to be situation-specific, as illustrated by Germany. On the one hand, it exhibited leadership in instituting Euro-

pean sanctions against Russia.[135] On the other hand, it exhibited leadership in the charge to build the Nord Stream 2 gas export pipeline, despite European opposition.

Increasing Europe's ability to import gas from suppliers other than Russia is a longer-term and more expensive effort that could economically extend Russia. Europe is slowly moving in that direction, such as by building regasification plants for LNG. To truly be effective, this policy would need global LNG markets to be more flexible than they already are. As noted, although there is destination flexibility (in the sense that LNG ships can easily be rerouted), there is limited supply flexibility (in the sense that supplies cannot easily be increased over the short term). Efforts to build more liquefaction plants and create some kind of supply insurance that reduces economic risk of not being able to sell what is produced could help increase supply flexibility. In addition, Europe might want to remain a consumer of Russian gas while building in other options. That would shift the balance of dependence toward Russia, giving Europe more leverage over Russian behavior.

Finally, encouraging Russian brain drain would help the United States, but any effects, either positive on the United States or negative on Russia, would be small and difficult to notice, at least over the short term.

Any effort to economically extend Russia should note two other factors. First, multilateral action would likely be more effective than unilateral action in almost every case. This argues for enhanced diplomacy and partnership in confronting Russia and guiding it back toward being a responsible and positive contributor to international relations.

Second, in some ways, Russia is assisting the United States and U.S. allies in an effort to economically extend that country. Poor economic policies have hampered it and are likely to continue doing so. Although some policy areas have improved, such as the cleanup of the banking sector, Russian economic policy throughout the late 2000s and into the 2010s was often counterproductive. Reversing that could

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135 Marco Siddi, "Germany: The EU's New Foreign Policy Engine," *EUROPP: European Politics and Policy*, blog post, The London School of Economics and Political Science, April 25, 2016.

involve reversing the current governing model, which is unlikely. Doing nothing, although not an active policy, would also let the Russian government continue its poor regulatory policies, its state control, and its wasteful investments, all of which would extend the country economically.

CHAPTER FOUR

Geopolitical Measures

Perhaps the most literal way to extend Russia would be to increase the costs of its foreign commitments. As early as the 1940s, George Kennan—the father of containment—suggested that the Soviet Union was already overextended and that the military, economic, and political costs of sustaining its empire would ultimately be one of the factors leading to the reform or collapse of the Communist system.

Russia today is far less extended than the old Soviet Union. Its domestic population is much more homogeneous, with ethnic Russians composing more than 77 percent of its population.[1] Its external commitments are far more limited, comprising only small bits of Ukraine, Georgia, and Moldova and a larger portion of Syria. It does face active opposition, however, in both Eastern Ukraine and Syria. The United States has provided limited support to Russia's opponents in both countries and might do more, thereby driving up Russian costs.

Proxy competition of this sort is not new. Indeed, the "great game" characterized interstate relations for several centuries, as aspirant global powers clashed over conflicting spheres of influence. The renewal of such maneuvering marks a return to a form of geopolitical competition that some analysts argue took a brief hiatus after the end of the Cold War, when the United States was left as the lone superpower and the ideology of liberal democracy seemed to reign supreme.[2]

1 CIA, "Russia," *The World Factbook*, November 6, 2017.

2 See, for example, Walter Russell Mead, "The Return of Geopolitics: The Revenge of the Revisionist Powers," *Foreign Affairs*, May–June 2014.

This chapter describes six possible U.S. moves in the current geopolitical competition: providing lethal arms to Ukraine, resuming support to the Syrian rebels, promoting regime change in Belarus, exploiting Armenian and Azeri tensions, intensifying attention to Central Asia, and isolating Transnistria (a Russian-occupied enclave within Moldova). There are several other possible geopolitical moves discussed in other RAND research but not directly evaluated here—including intensifying NATO's relationship with Sweden and Finland, pressuring Russia's claims in the Arctic, and checking Russia's attempts to expand its influence in Asia.[3]

Intensifying the challenge to Russian military presence and operations abroad could have several consequences. It might cause Russia to withdraw from some of these commitments, which could be an important win for the United States but would do the opposite of extending Russia—causing it, rather, to contract, perhaps to a more defensible perimeter. Crimea, Eastern Ukraine, and Syria are drains on the Russian treasury and defense budget. Alternatively, and more likely, Russia might escalate, possibly seizing more of Ukraine, supporting further advances of the Damascus regime, or actually occupying a wavering Belarus. Such moves would likely impose serious additional strains on Russian defense and economic capacity, but would also represent a serious setback for U.S. policy. Given this range of possible responses, any U.S. moves of the sort described in this chapter would need to be carefully calibrated and pursued within some larger policy framework.

Measure 1: Provide Lethal Aid to Ukraine

On November 21, 2013, protests in Maidan square broke out after President Yanukovych—under pressure from Moscow—rejected an

[3] See Stephanie Pezard, Abbie Tingstad, Kristin Van Abel, and Scott Stephenson, *Maintaining Arctic Cooperation with Russia: Planning for Regional Change in the Far North*, Santa Monica, Calif.: RAND Corporation, RR-1731-RC, 2017; Christopher S. Chivvis, Raphael S. Cohen, Bryan Frederick, Daniel S. Hamilton, F. Stephen Larrabee, and Bonny Lin, *NATO's Northeastern Flank: Emerging Opportunities for Engagement*, Santa Monica, Calif.: RAND Corporation, RR-1467-AF, 2017.

association agreement with the EU.[4] More than 100 protesters were killed over the next several months, and the Yanukovych regime collapsed in February 2014.[5] Within days, Russian troops seized Crimea's airport and other strategic locations in a largely bloodless invasion, and 96 percent of Crimean voters—many of whom are ethnic Russian—voted in a referendum marred by accusations of fraud to secede from Ukraine and join Russia on March 16, 2014.[6] In the Donbass region of Eastern Ukraine, a Russian-inspired intervention started similarly but did not go as smoothly. Armed separatists seized key buildings in the region in April 2014 and later held referendums, where the populations of Donetsk and Luhansk voted overwhelmingly (89 percent and 96 percent of those voting, respectively) for independence.[7] This time, however, Ukraine fought back. Newly elected Ukrainian President Petro Poroshenko ordered an "anti-terrorist operation" targeting the separatists that summer.[8] By early 2017, some 60,000 Ukrainian soldiers were facing off against some 40,000 Russian-backed separatist forces—including an estimated 5,000 Russian soldiers—in a conflict that has so far cost some 10,000 people their lives.[9]

The United States and its European allies imposed economic sanctions on Russia and provided Ukraine with economic and nonlethal military assistance. In 2014, Congress authorized military and economic assistance under the Ukraine Freedom Support Act.[10]

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4 Vincent L. Morelli, *Ukraine: Current Issues and U.S. Policy*, Washington, D.C.: Congressional Research Service, RL33460, January 3, 2017, p. 2.

5 Morelli, 2017, p. 2.

6 Morrelli, 2017, p. 3.

7 Morelli, 2017, pp. 21–22.

8 Morrelli, 2017, p. 22.

9 "Put Asunder: Ukraine's Leaders May Be Giving Up on Reuniting the Country," *Economist*, February 11, 2017. For a detailed analysis of Russia's operations in both Crimea and the Donbass, see Michael Kofman, Katya Migacheva, Brian Nichiporuk, Andrew Radin, Olesya Tkacheva, and Jenny Oberholtzer, *Lessons from Russia's Operations in Crimea and Eastern Ukraine*, Santa Monica, Calif.: RAND Corporation, RR-1498-A, 2017.

10 Public Law 113-272, Ukraine Freedom Support Act, December 18, 2014; Morelli, 2017, pp. i–ii.

From then through fiscal year (FY) 2016, the United States provided $600 million in security assistance.[11] These funds have been used to train Ukrainian military forces and provided nonlethal military equipment, including counterartillery and countermortar radars, secure communications, logistics systems, tactical unmanned reconnaissance aircraft, and medical equipment.[12] During the 2014 Wales Summit, NATO also agreed to aid Ukraine with command, control, communications and computers, logistics, cyberdefense, military personnel, and medical support issues.[13]

The United States could increase its military assistance to Ukraine—in terms of both the quantity and quality of weapons. In a February 2, 2017, open letter to President Trump, Senator John McCain urged him "to provide defensive lethal assistance to Ukraine to defend its territory against further violations by Russia and its separatist proxies" in response to the uptick in violence in Eastern Ukraine.[14] McCain's statement echoed a February 2015 letter from Democratic Assistant Minority Leader Senator Dick Durbin and Ohio Republican Senator Rob Portman also calling for the United States to provide anti-tank missiles to Ukraine.[15] In December 2017, the United States approved the sale of "defensive" lethal weapons to Ukraine, although it did not specify what weapons fell into the category.[16]

The United States could also become more vocal in its support for NATO membership for Ukraine. Some U.S. policymakers—including Republican Senator and 2016 presidential candidate Marco Rubio—

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[11] Morelli, 2017, p. 38.

[12] Morelli, 2017, p. 38.

[13] Morelli, 2017, p. 36.

[14] John McCain, "SASC Chairman John McCain Urges President Trump to Provide Defensive Lethal Assistance to Ukraine," February 2, 2017.

[15] Richard Durbin, "Durbin, Portman Lead Bipartisan Senators Calling for Increased Military Assistance to Ukraine," February 3, 2015. Outside analysts have pushed for the United States to provide such aid as well. See, for example, Jeffrey Mankoff and Andrew Kuchins, "Russia, Ukraine, and U.S. Policy Options: A Briefing Memo," Center for Strategic and International Studies, January 2015, p. 8.

[16] "U.S. Says It Will Provide Ukraine with 'Defensive' Aid," Reuters, December 22, 2017.

backed this approach in the past and Ukrainian President Poroshenko recently promised to hold a referendum on the issue in the near future.[17] While NATO's requirement for unanimity makes it unlikely that Ukraine could gain membership in the foreseeable future, Washington's pushing this possibility could boost Ukrainian resolve while leading Russia to redouble its efforts to forestall such a development.

Benefits

Expanding U.S. assistance to Ukraine, including lethal military assistance, would likely increase the costs to Russia, in both blood and treasure, of holding the Donbass region. More Russian aid to the separatists and an additional Russian troop presence would likely be required, leading to larger expenditures, equipment losses, and Russian casualties. The latter could become quite controversial at home, as it did when the Soviets invaded Afghanistan.

Two other somewhat more speculative benefits might flow from such an expanded U.S. commitment. Countries elsewhere that look to the United States for their security might be heartened. Some of those states might find new reasons to avoid developing their own nuclear weapons.

In the December 1994 Budapest Memorandum, the United States, the United Kingdom, and Russia provided the newly sovereign Ukraine with security "assurances" in exchange for Ukraine giving up its 4,000-warhead nuclear arsenal.[18] Action by the United States to make good on these assurances could enhance the credibility of formal and informal security guarantees that the United States has provided other partners around the world, and could reduce their perceived need for their own nuclear deterrents. These benefits, however, would only accrue if the additional U.S. assistance actually allowed Ukraine to prevail in its conflict with Russia. Moreover, some scholars doubt

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[17] Marco Rubio, "My Vision for Europe," *Politico*, February 17, 2015; "Ukraine's Poroshenko Plans Referendum on NATO Membership: German Media," Reuters, February 1, 2017.

[18] Russian Federation, United States of America, and United Kingdom, "Budapest Memorandums on Security Assurances," Budapest, 1994; David S. Yost, "The Budapest Memorandum and Russia's Intervention in Ukraine," *International Affairs*, Vol. 91, No. 3, 2015, p. 514.

whether doubling down on support for Ukraine would matter much regarding global nuclear nonproliferation based on the argument that countries' decisions to develop nuclear weapons often are very localized and context-specific.[19]

Risks

An increase in U.S. security assistance to Ukraine would likely lead to a commensurate increase in both Russian aid to the separatists and Russian military forces in Ukraine, thus sustaining the conflict at a somewhat higher level of intensity.[20] Lieutenant General Ben Hodges, the former commanding general of U.S. Army Europe, argued against giving Javelin anti-tank missiles to Ukraine for precisely this reason.[21]

Alternatively, Russia might counter-escalate, committing more troops and pushing them deeper into Ukraine. Russia might even preempt U.S. action, escalating before any additional U.S. aid arrives. Such escalation might extend Russia; Eastern Ukraine is already a drain. Taking more of Ukraine might only increase the burden, albeit at the expense of the Ukrainian people. However, such a move might also come at a significant cost to Ukraine and to U.S. prestige and credibility. This could produce disproportionately large Ukrainian casualties, territorial losses, and refugee flows. It might even lead Ukraine into a disadvantageous peace.

Some analysts maintain that Russia lacks the resources to escalate the conflict. Ivan Medynskyi of the Kyiv-based Institute for World Policy argued, "War is expensive. Falling oil prices, economic decline, sanctions, and a campaign in Syria (all of which are likely to continue in 2016) leave little room for another large-scale military maneuver by Russia."[22] According to this view, Russia simply cannot afford to

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[19] For example, see Robert Einhorn, "Ukraine, Security Assurances, and Nonproliferation," *Washington Quarterly*, Spring 2015, pp. 47–72.

[20] Yost, 2015, p. 528.

[21] Ivan Medynskyi, *U.S. Lethal Weapons for Ukraine: Mechanisms and Consequences*, Kyiv, Ukraine: Institute for World Policy, January 2016, p. 6.

[22] Medynskyi, 2016, pp. 7–8.

maintain a proxy war in Ukraine, although, given Russia's size and the importance it places on Ukraine, this might be an overly optimistic assumption.

There is also some risk of weapons supplied to the Ukrainians winding up in the wrong hands. A RAND study conducted for the President of Ukraine found reasons for concern about the potential misuse of Western military aid. While Ukraine has been tarred by Russian propaganda claims that it mishandled Western military aid, the RAND team also found that "Ukraine's paper systems for tracking equipment are outdated and vulnerable to corruption."[23] Moreover, the RAND team also expressed concern that, absent reforms to Ukraine's defense industry, Western military equipment might be reverse-engineered and enter the international market in competition with U.S. suppliers.[24] Ultimately, the team concluded, "The perception of misuse or corruption, whatever the reality, is sufficient to deter donors that might otherwise provide free equipment or supplies, and to make U.S. or other officials concerned that Ukraine cannot be trusted with high-tech systems."[25] The RAND team also concluded, however, that these problems are fixable and offered recommendations to Ukraine on how to overcome them.

On the other hand, Ukraine is certainly a more capable and reliable partner than others to whom the United States has provided lethal equipment—for instance, the anti-Russian Afghan mujahidin in the 1980s.

One might imagine an unacknowledged U.S. effort to provide Ukraine with weapons of non-U.S. origin, but such efforts likely would not remain secret for long; furthermore, Ukraine can probably procure such weapons itself on the open market.

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[23] Olga Oliker, Lynn E. Davis, Keith Crane, Andrew Radin, Celeste Gventer, Susanne Sondergaard, James T. Quinlivan, Stephan B. Seabrook, Jacopo Bellasio, Bryan Frederick, Andriy Bega, and Jakub Hlavka, *Security Sector Reform in Ukraine*, Santa Monica, Calif.: RAND Corporation, RR-1475-1-UIA, 2016, p. 91.

[24] Oliker et al., 2016, p. 86.

[25] Oliker et al., 2016, p. 91.

Finally, if the United States were to boost aid to Ukraine against the advice of its principal European allies, it could endanger European support for the Russia sanctions regime, which relies more heavily on European adherence than on U.S. adherence. While NATO members located close to Russia, such as Poland, generally take a more hawkish approach to Ukraine, most Western European governments remain cautious. According to a 2015 Pew survey, 59 percent of Frenchmen, 65 percent of Italians, 66 percent of Spaniards, and 77 percent of Germans opposed NATO sending arms to Ukraine.[26] Indeed, according to reporting by the German newspaper *Der Spiegel*, former NATO Supreme Allied Commander General Philip Breedlove viewed the German government as one the major obstacles to boosting aid to Ukraine.[27]

Oddly enough, the same 2015 survey showed somewhat higher levels of European support for Ukraine joining NATO. That suggestion had majority support in the United Kingdom, Europe, Poland, France, and Spain.[28] However, 57 percent of Germans opposed this measure, and NATO operates by consensus, which means that any proposal to admit Ukraine into the Alliance would need to garner unanimous support.[29]

More-vocal U.S. advocacy of NATO membership for Ukraine would likely strengthen both Ukrainian morale and Russian determination to prevent such a development, thereby perhaps further extending Russia's commitment and costs. Such a move would also engender opposition within NATO, detracting from what has otherwise been a rather united front in opposition to Russian aggression.

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26 Katie Simmons, Bruce Stokes and Jacob Poushter, "NATO Public Opinion: Wary of Russia, Leery of Action on Ukraine," Pew Research Center, June 10, 2015.

27 Christoph Schult and Klaus Wiegrefe, "Network Close to NATO Military Leader Fueled Ukraine Conflict," *Der Spiegel*, July 28, 2016.

28 Simmons, Stokes, and Poushter, 2015.

29 Simmons, Stokes, and Poushter, 2015.

Likelihood of Success

Eastern Ukraine is already a significant drain on Russian resources, exacerbated by the accompanying Western sanctions. Increasing U.S. military aid would certainly drive up the Russian costs, but doing so could also increase the loss of Ukrainian lives and territory or result in a disadvantageous peace settlement. This would generally be seen as a serious setback for U.S. policy.

Conclusion

The option of expanding U.S. military aid to Ukraine has to be evaluated principally on whether doing so could help end the conflict in the Donbass on acceptable terms rather than simply on costs it imposes on Moscow. Boosting U.S. aid as part of a broader diplomatic strategy to advance a settlement might well make sense, but calibrating the level of assistance to produce the desired effect while avoiding a damaging counter-escalation would be challenging.

Measure 2: Increase Support to the Syrian Rebels

Syria is another battlefield where Russian costs might be driven up by expanded U.S. support to local—in this case anti-regime—forces.

The Syrian Civil War began in March 2011 as an outgrowth of the Arab Spring. It pitted primarily Sunni rebels—back by the United States and the Gulf States—against the Iranian and Russian-backed Allawite government of al-Assad, whose family has ruled Syria since 1970. Russia has provided the Assad regime with economic and military support over the years and stepped up its support after civil war broke out in 2011.[30] In September 2015, Russia began direct military action in Syria—targeting rebel groups, some backed by the United States, with airstrikes—under the guise of fighting terrorism.[31] During

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30 Carla E. Humud, Christopher M. Blanchard, and Mary Beth D. Nikitin, *Armed Conflict in Syria: Overview and U.S. Response*, Washington, D.C.: Congressional Research Service, RL33487, January 6, 2017, p. 7

31 Humud, Blanchard, and Nikitin, 2017, p. 7.

2016, Russia deployed more military assets to the region, including advanced air defense systems.[32] By the end of 2017, Russia announced that it planned to maintain a permanent presence in the country, including a more robust presence at its long-standing Tartus naval base and the inland air base at Khmeimim.[33] Russia's intervention allowed the Syrian government to retake Aleppo and advance on several other fronts

Under both Presidents Obama and Trump, the United States has concentrated its military efforts on supporting local Kurdish-dominated forces in the east of the country in offensives against the Islamic State. Exceptions have been two limited air strikes, one against a regime airfield in retaliation for the Syrian government's use of chemical weapons, and the other against a pro-regime Iranian-backed militia column approaching too closely to a U.S.-occupied airfield. U.S.-backed Arab opponents of the regime in the west of the country have lost ground both to the regime and to more-extremist al Qaeda–affiliated elements.

In 2015, Russia's intervention in Syria cost an estimated $2.4 million to $4 million a day, according to the *Moscow Times* and IHS Janes' estimates.[34] Given the size of Russia's defense budget ($50 billion that year), the sum might not be significant in and of itself.[35] These costs might be increased if the United States increases its backing for anti-regime fighters.

There are at least two possible ways for the United States to aid the rebels. First, the United States could supply anti-Assad rebels with military aid. Russia already indicated that it views U.S. aid to the Syrian rebels as a threat. When the United States passed a law easing the weapons restrictions for the rebels in December 2016, Russian Foreign Ministry spokesperson Maria Zakharova responded angrily, "Washington has placed its bets on supplying military aid to antigovernment

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32 Humud, Blanchard, and Nikitin, 2017, p. 8.

33 L. Todd Wood, "Russia to Keep Permanent Forces in Syria," *Washington Times*, December 26, 2017.

34 Holly Ellyatt, "This Is How Much Russia's 'War' in Syria Costs," CNBC, October 21, 2015.

35 Ellyatt, 2015.

forces who don't differ that much from blood thirsty head choppers. We therefore view the step as a hostile act."[36] Zakharova argued that this move directly threatened Russian troops in Syria.[37] Given these sentiments, if the United States were to pursue this policy in the future, it likely would provoke a Russian response.

The United States might provide the rebels with air support, or at least deny the Syrian government the use of air power through a no-fly zone. Several high-profile actors—from former Secretary of State Hillary Clinton to Turkish President Recep Tayyip Erdogan—advocated no-fly zones.[38] This might be conducted in conjunction with creating safe zones—or areas that would protect the civilian population from ground attack as well—through either the threat of or the explicit use of force against Syrian government (and presumably also Islamic extremist) forces.[39] For his part, President Trump expressed some openness to both ideas. On January 27, 2017, Trump said he "will absolutely do safe zones in Syria," although he did not specify how he would execute these strategies.[40]

More recently, the Trump administration seems to have been moving in the opposite direction, reportedly ending a CIA program to arm and train anti-regime elements. The United States is continuing to arm, train, and provide air support to Kurdish and Arab opponents of the Islamic State, some of whom might ultimately wish for help in defending against the Damascus regime as well.

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[36] Andrew Osborn, "Russia Calls U.S. Move to Better Arm Syrian Rebels a 'Hostile Act,'" Reuters, December 27, 2016.

[37] Osborn, 2016.

[38] Spencer Ackerman, "Why Clinton's Plans for No-Fly Zones in Syria Could Provoke US-Russia Conflict," *The Guardian*, October 25, 2016; Suzan Fraser and Bassem Mroue, "Turkey Calls on U.S., Allies to Reconsider Syria No-Fly Zone," Associated Press via *Military Times*, November 21, 2016.

[39] For an example of this proposal, see Nicholas Burns and James Jeffrey, "The Diplomatic Case for America to Create a Safe Zone in Syria," *Washington Post*, February 4, 2016.

[40] Stewart, 2017.

Benefits

Increased U.S. support to the moderate Syrian opposition could perpetuate and intensify a civil war that had begun to wind down, thereby imposing attritional costs on both Russia and Iran. (Iran already spent significant resources to prop up Assad—between $6 billion and $35 billion annually, according to some estimates—and the United States could help to drive the price tag up further.[41]) Such support could also reduce the moderate opposition's reliance on the better-armed, more extremist groups and ultimately might improve the willingness and ability of moderate opposition forces to combat the more extremist elements.

Risks

Unlike Ukraine, the United States does not have a single actor to aid in the fight in Syria but rather faces a plethora of groups—often with murky affiliations—increasing the chances of weapons falling into the wrong hands. The *New York Times* reported in 2016 that weapons intended for Syrian rebels and shipped into Jordan and Saudi Arabia by the CIA had been systematically stolen and that, as a result, the Middle East black market for arms is now awash in assault rifles, mortars, and rocket-propelled grenades.[42]

Second, arming the rebels would fuel greater turmoil in Syria. For better or worse, the Syrian government has made significant gains in such places as Aleppo with Russian help.[43] Aiding the rebels could prolong the conflict but—barring direct U.S. military intervention against the Damascus regime—probably would not change the ultimate outcome. Additional refugee flows might put further pressure on Syria's immediate neighbors, several of whom— Jordan, Turkey, and Israel—are U.S. allies.

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41 Eli Lake, "Iran Spends Billions to Prop Up Assad," Bloomberg, June 9, 2015.

42 Mark Mazzetti and Ali Younes, "CIA Arms for Syrian Rebels Supplied Black Market, Officials Say," *New York Times*, June 26, 2016.

43 Angela Dewan, Euan McKirdy, and Joe Sterling, "Russia: Syria Establishes Control over Eastern Aleppo," CNN, December 13, 2016.

Finally, supporting the rebels could run counter to the most prominent objective of the Trump administration's Middle East foreign policy—fighting radical Islamist terrorism.[44] As Trump argued, by defeating the Syrian government, the United States would also destroy an enemy of the radical Sunni Islamic terrorist groups.[45] Indeed, as the United States saw in Iraq and later in Libya, terrorist groups often can thrive in the political vacuums left by the downfall of strongman governments.

As noted, it is unlikely that any level of U.S. arms and training could shift the balance of forces in the Syrian opposition's favor. Only the direct application of U.S. airpower, advisers, and other enabling capabilities could have such an effect. This would bring U.S. forces into direct contact with Russian forces in the air and Iranian ones on the ground. The United States and Russia might try to avoid direct combat, but the risk of escalation would be high. Iran might respond by employing local proxies in Iraq and Afghanistan to attack U.S. forces there.

U.S. officials have occasionally considered the establishment of safe zones in Syria. Russia, Turkey, and Iran have recently agreed to establish four "deconfliction zones" that could serve much the same purpose. To the extent that such arrangements take hold, they could reduce the violence and promote some interim peace within a still badly divided Syria. This would reduce the burden imposed by the conflict on Russia and Iran, to be replaced perhaps by the costs of policing these cease-fire lines and beginning reconstruction in the regime-held areas, which are unlikely to receive much Western assistance.

Likelihood of Success

Apart from the risks outlined above, any policy to boost support to the Syrian rebels would likely need to overcome multiple hurdles—

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44 Donald Trump, "Remarks by President Trump in Joint Address to Congress," Washington, D.C.: Office of the Press Secretary, White House, February 28, 2017.

45 In a 2016 interview, Trump said, "I've had an opposite view of many people regarding Syria. My attitude was, 'you're fighting Syria, Syria is fighting ISIS, and you have to get rid of ISIS.'" David E. Sanger, "Donald Trump Likely to End Aid for Rebels Fighting Syrian Government," *New York Times*, November 11, 2016.

starting with a political obstacle. Aiding the Syrian rebels has never been popular. Back in 2013, Gallup found that only 37 percent of Americans approved of Obama administration plans to arm the rebels (54 percent disapproved).[46] Since then, the numbers declined further as the Obama administration's attempts to stand up a moderate opposition faltered. Polling from August 2016 showed that a mere 26 percent of Americans supported such a move.[47] Reverting back to such a policy, consequently, would require a significant effort to sell it to the American public.

The United States would also face an international political hurdle. Boosting support to anti-regime elements would likely require Turkish cooperation because Turkey is not only geographically adjacent to Syria but also one of the most powerful actors backing the opposition. Turkey, however, might back the initiative only if the United States were to cease its support for the Kurdish rebels that Turkey views as a threat. The Kurds, however, are staunch U.S. allies in Syria and Iraq, and one of most militarily competent secular rebel groups remaining.

Finding other rebel groups without ties to Islamic extremist organizations would also be difficult. Much of the moderate opposition has already been eliminated and U.S. attempts to build its own Syrian opposition failed.[48] For example, according to media accounts, the U.S. Department of Defense clashed with the CIA over whether the Aleppo rebels were affiliated with al Qaeda in Syria or with Jabhat al Nusra and whether they deserved U.S. military aid.[49]

Finally, in the highly unlikely event of total success—if Russia were to abandon the Assad regime and the opposition were to seize Damascus—the result would be a major geopolitical setback for

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[46] Frank Newport, "Americans Disapprove of U.S. Decision to Arm Syrian Rebels," Gallup, June 17, 2013.

[47] Adam Taylor, "Poll: Most Americans Support U.S. Military Action in Syria—but Only Want a Limited Amount," *Washington Post*, August 15, 2016a.

[48] Spencer Ackerman, "U.S. Has Trained Only 'Four or Five' Syrian Fighters Against ISIS, Top General Testifies," *The Guardian*, September 16, 2015.

[49] Nancy Youssef, "CIA and Pentagon Bicker While Russia Wipes Out U.S.-Backed Rebels," *Daily Beast*, June 9, 2016.

Moscow but also a major contraction in its foreign commitments and associated expenditures, not to mention a huge responsibility for the United States and its allies to assume.

Conclusion

This course of action might have been viable a few years ago, when the armed opposition was stronger and less radicalized. Under current circumstances, the most that expanded U.S. aid could likely do would be to perpetuate a conflict that has already destabilized an entire region. Russia might be forced to pay a bit more for its Syrian commitment but only at the cost of continued regional turbulence, societal radicalization, and increased civilian casualties and displaced personnel.

Measure 3: Promote Regime Change in Belarus

Belarus is Russia's most important ally. It provides a buffer between Russia and major NATO countries and is the initial link in Russia's ground lines of communication between the mainland and Kaliningrad—the Russian enclave entirely encircled by Lithuania and Poland. Already host to Russian forces, Belarus features prominently in many notional conflicts among the United States, NATO, and Russia.[50]

Russia has had a reliable friend at the helm of Belarus—President Alexander Lukashenko.[51] For the past several decades, Lukashenko stayed in power by exploiting Belarus' position as a key transit point for Russian oil and natural gas while centralizing his political power and marginalizing his political opponents.[52] As Belarusian political analyst Siarhei Bohdan writes, "The political opposition is suffering from years of exclusion from public sphere; they have not held a seat in parliament

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50 David A. Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, Calif.: RAND Corporation, RR-1253-A, 2016; Arseni Sivitski, "Belarus at the Center of Russia-NATO Wargame Simulation," *Belarus Digest*, February 13, 2017.

51 Christian Davies and Paul Hansbury, "Europe's Last Dictator Steps into the Unknown," *Foreign Policy*, September 16, 2016.

52 Davies and Hansbury, 2016.

since 1996, they are virtually ignored by state-affiliated media and the government have restricted their right to protest."[53] In October 2015, Lukashenko won reelection with 83.5 percent of the vote in an election fraught with problems.[54]

And yet, Lukashenko's grip on Belarus might be loosening. Beginning in 2015, oil prices and foreign support dipped and Belarus faced a worsening recession.[55] Political scientists Charles Crabtree, Christopher J. Fariss, and Paul Schuler argue that this challenged "Lukashenko's unspoken political compact with Belarusians that involves him providing large social welfare programs in exchange for political acquiescence."[56] Lukashenko responded by blaming the unemployed and the underemployed for not trying to find work. He introduced a "law against social parasites," targeting people who work fewer than 183 days a year with an annual tax of $250, a sizable fine considering that most Belarusians made an average of $380 a month at the start of 2017.[57] The tax affected some 470,000 people, according to the Belarusian Tax Ministry, and failing to pay it could be punished with up to 15 days in jail.[58]

The 2016 "social parasite" tax deadline came on February 20, 2017. Some 54,000 individuals paid the tax; many more did not.[59] Beginning on February 17, thousands of Belarusians took to the streets

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[53] Siarhei Bohdan, "'A 4.1 Is Impossible in Belarus," *The Guardian*, March 25, 2015.

[54] Organization for Security and Cooperation in Europe, Office for Democratic Institutions and Human Rights, *Republic of Belarus Presidential Election, October 11, 2015: OSCE/ODHIR Election Observation Mission Final Report*, Warsaw, Poland: January 26, 2016, pp. 3, 23.

[55] Charles Crabtree, Christopher J. Fariss, and Paul Schuler, "In Belarus, Europe's 'Last Dictator' Is Actually Allowing Protest. Here's Why," *Washington Post*, March 24, 2017.

[56] Crabtree, Fariss, and Schuler, 2017.

[57] Amanda Erickson, "Belarus Had a Large Protest Today. Is It the Beginning of a Movement, or the End?" *Washington Post*, March 25, 2017; "Belarusian President Suspends Collection of 'Parasite' Tax on Jobless People," Belarus Radio Free Europe/Radio Liberty, March 9, 2017.

[58] Erickson, 2017; "Belarusian President Suspends Collection of 'Parasite' Tax on Jobless People," 2017.

[59] "Belarusian President Suspends Collection of 'Parasite' Tax on Jobless People," 2017.

to protest the tax.[60] The government initially allowed the protest and even waived the collection of the tax, but the protests continued and eventually the government cracked down. By March 27, 2017, according to human rights groups, at least 1,000 people were arrested and 150 were sentenced to up to 25 days in jail.[61] From the opposition's standpoint, the protests presented an opportunity "to build on the outrage to create a more sustained, far-reaching movement."[62] As Anatol Lyabedzka, leader of the opposition United Civic Party stated, "It will never do to be satisfied with a scrap thrown by the authorities. We have to continue demanding a completely different situation. . . . It is necessary to change a large number of laws, to create different opportunities for the people, to give them a right to choose."[63]

From a U.S. policy standpoint, Belarus' unrest might present an opportunity to extend Russia by aiding the opposition, removing a long-standing Russian-allied dictator, and supporting liberalization. This aid to Lukashenko's opposition could come in a variety of forms, ranging from public declarations of support by U.S. leaders to more-direct financial and organizational assistance helping the opposition parties reach the end state of being a free and democratic Belarus. Alternatively, the United States could adopt precisely the opposite approach and try to leverage the recent unrest to build a closer relationship with Lukashenko's regime through the offers of economic aid.

Benefits

In a zero-sum world, denying Russia its one and only true ally would be a clear geopolitical and ideological gain for the West. It would bring an end to "Europe's last dictatorship," a long-standing U.S. policy goal.[64] Moreover, it would undermine Russia's attempt to create an

60 Crabtree, Fariss, and Schuler, 2017.

61 "Rights Group: More Than 1,000 Arrested in Belarus Protests," Associated Press via Fox News, March 27, 2017.

62 Erickson, 2017.

63 "Belarusian President Suspends Collection of 'Parasite' Tax on Jobless People," 2017.

64 "Rice: Belarus Is 'Dictatorship,'" CNN International, April 20, 2005; Bureau of European and Eurasian Affairs, "U.S. Relations with Belarus," fact sheet, U.S. Department of State, September 6, 2016.

EEEU in competition with the EU, complicate any Russian attempt to employ military force against the Baltic States, and further isolate Kaliningrad.[65]

Even if U.S. efforts to boost local opposition to the existing regime in Minsk failed to bring about democratic change, the existence of such a campaign would create apprehensions among Russian leaders who have tended to exaggerate the Western role on other color revolutions and even worry about the prospect of such a movement in their own country. (The possible utility of stepping up the ideological and informational competition with Russia inside and outside that country is explored in Chapter Five.)

One possible Russian reaction might be to reinforce its military presence and political influence within Belarus. This would further burden Russia with a weak, corrupt dependency and might even generate some degree of local resistance. On the other hand, it would also increase the military threat to the Baltic States, Poland, and Ukraine by sheer proximity.

Risks

Russia likely regards a friendly Belarus as even more important to its security than Ukraine.[66] Any effort to alter the character or geopolitical orientation of the government in Minsk would likely encounter a strong and, if necessary, violent Russian reaction. At the very least, Russia would likely employ political and economic pressure to keep the regime in place.[67] The most likely domestic response in Belarus to such a campaign would be greater local repression and efforts to brand any domestic opposition in Belarus as agents of the West. In the less likely

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65 See Shlapak and Johnson, 2016.

66 Indeed, the Russian Foreign Policy Concept notes the centrality of Belarus to its foreign policy and states that "Russia is committed to expanding strategic cooperation with the Republic of Belarus within the Union State with a view to promoting integration in all areas." Ministry of Foreign Affairs of the Russian Federation, *Foreign Policy Concept of the Russian Federation*, December 1, 2016.

67 See Elena Ostanina and Alex Kokcharov, "Russia Likely to Use Trade Disputes to Force Belarus to Allow Russian Military Bases, Direct Invasion Unlikely," *IHS Jane's Intelligence Weekly*, February 13, 2017.

event that the opposition would be able to mount a serious challenge to the existing regime, some more substantial form of Russian intervention would seem likely. Russia already runs regular military exercises in the country;[68] it might also respond by stepping up its own efforts to destabilize third-country regimes in the West or elsewhere in the former Soviet space.

Likelihood of Success

Starting revolutions is not easy, and the United States lending public support to opposition movements does not guarantee that they will be successful. In 2007, Gallup found that 60 percent of Belarusian respondents believed democracy was important and 47 percent believed it was "somewhat" or "very" important for Belarus to have an active opposition party.[69] A 2013 poll similarly found that 55 percent of Belarusian respondents had a positive image of the EU, up 15 percent from five years earlier.[70] That said, more-recent polling found that Belarusians were not clamoring for revolution. An Independent Institute for Socio-Economic and Political Research survey in 2015 found that 78 percent of Belarusians believed a better future was "not worth people's blood" and 70 percent "did not want a Ukrainian-style revolution."[71] As Belarusian expert Balazs Jarabik summed up, "People don't want more freedom. They want more government. They want the better life they used to have."[72] Although Belarus' more-recent protests might have shifted opinions somewhat, the United States would still likely face an uphill battle at promoting regime change.

Effectively promoting liberalization in Belarus would require European support. Latvia, Lithuania, Poland, and Ukraine all border

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68 Juliusz Sabak, "Major Deployment of Russian Equipment to Belarus Expected in 2017. Exercise, Aggression or a New Military Base?" Defence24, November 29, 2016.

69 Cynthia English and Neli Esipova, "Democracy Important to a Majority of Belarusians," Gallup, April 4, 2008.

70 Vadzim Bylina, "New Poll: Belarusians Became More Pro-European," *Belarus Digest*, November 7, 2013.

71 Bohdan, 2015.

72 Erickson, 2017.

Belarus, and turmoil in Belarus might produce second-order effects—such as refugee flows—in these countries. Moreover, should Russia horizontally escalate, these countries—and others—could face Russian wrath. Finally, even if Russia were to not respond as a new reformist government took office in Minsk, Europe would need to play a key role in the aftermath, ensuring that democratic reforms took hold and Belarus' economy revived.

Europe currently faces a host of other challenges—from Ukraine to refugees to Brexit—and it might not want to add Belarus to the mix. Indeed, after Belarus' elections in October 2015, EU foreign ministers suspended sanctions against that country temporarily after Belarus released some of its political prisoners—despite widespread allegations of voter fraud and warnings that Belarus was headed toward a "soft dictatorship."[73] Arguably, there might be even less desire to rock the boat now than there was in 2015.

Conclusion

Promoting regime change in Belarus is one of the most escalatory options considered in this report. Such an effort probably would not succeed and could provoke a strong Russian response, including the possibility of military action. Such a reaction might extend Russia by requiring the nation to commit resources to preserve its grasp over Belarus, thereby provoking the United States and its European allies to respond with harsher sanctions, but the result would be a general deterioration of the security environment in Europe and a setback for U.S. policy.

Nevertheless, if the United States were to step up its ideological and informational competition with Russia more generally, as will be examined in Chapter Five, including Belarus in such a campaign might make sense.

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[73] "Belarus Poll: EU Lifts Sanctions on Lukashenko—'Europe's Last Dictator,'" *The Guardian*, October 12, 2015.

Measure 4: Exploit Tensions in the South Caucasus

Georgia, Azerbaijan, and Armenia were part of the Soviet Union, and Russia still maintains significant sway over the region today (Figure 4.1). In August 2008, after peace agreements with separatists broke down, Georgia fought a brief war over the South Ossetia and Abkhazia enclaves, two semi-independent pro-Russia provinces of Georgia. The war proved disastrous for Georgia. Russia quickly intervened and eventually occupied both regions and, briefly, other parts of Georgia as well. Georgia signed a cease-fire agreement on August 14, 2008, only eight days after the Russian intervention. However, Russian forces remain in South Ossetia and Abkhazia, both of which have since declared their independence.[74]

Today, Russia recognizes both South Ossetia and Abkhazia as separate countries (one of the few governments to do so) and is committed to their defense.[75] Russia's Foreign Policy Concept states that

> assisting the establishment of the Republic of Abkhazia and the Republic of South Ossetia as modern democratic States, strengthening their international positions, and ensuring reliable security and socioeconomic recovery remains a priority for Russia.[76]

Russia also maintains an active military presence in the region. In September 2016, 4,000 Russian troops participated in a military exercise in South Ossetia.[77] On January 25, 2018, the Russian Duma approved a military agreement that allowed for the "inclusion of separate units of the armed forces of the Republic of South Ossetia into the armed forces of the Russian Federation."[78]

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[74] Jim Nichol, *Russia-Georgia Conflict in August 2008: Context and Implications for U.S. Interests*, Washington, D.C.: Congressional Research Service, RL34618, March 3, 2009.

[75] Nichol, 2009, p. 9.

[76] Ministry of Foreign Affairs of the Russian Federation, 2016.

[77] Damien Sharkov, "Russia Drills 4,000 Troops in Georgian Breakaway Region," *Newsweek*, September 26, 2016.

[78] Tom Day, "Russia Ratifies Military Agreement with South Ossetia," *Georgia Today*, January 25, 2018.

Figure 4.1
Georgia, Abkhazia, and South Ossetia



SOURCE: United Nations Geospatial Information Section, with overlay by Wikimedia Commons user ChrisO, August 12, 2008.

Russia also plays a key role with Azerbaijan and Armenia, particularly over the disputed territory of Nagorno-Karabakh. Ethnically Armenian but geographically located within Azerbaijan, Nagorno-Karabakh's bid to join the Armenia Soviet Socialist Republic during the latter years of the Soviet Union was denied by the Soviet Politburo because of the risk of encouraging secessionist movements elsewhere.[79] In 1992, after the dissolution of the Soviet Union, Armenia and Azerbaijan declared independence and fought a war over this enclave. The war ended with Armenian forces controlling Nagorno-Karabakh and some surrounding provinces, and Russia brokered a cease-fire in

[79] Thomas De Waal, *Black Garden: Armenia and Azerbaijan Through Peace and War*, New York: New York University Press, 2003, p. 21.

May 1994.[80] Armenia and Azerbaijan never reached a final peace agreement and armed clashes continue to this day.

The United States could extend Russia in the Caucasus in two ways. First, the United States could push for a closer NATO relationship with Georgia and Azerbaijan, likely leading Russia to strengthen its military presence in South Ossetia, Abkhazia, Armenia, and southern Russia.

Alternatively, the United States could try to induce Armenia to break with Russia. Although a long-standing Russian partner, Armenia has also developed ties with the West: It provides troops to NATO-led operations in Afghanistan and is a member of NATO's Partnership for Peace, and it also recently agreed to strengthen its political ties with the EU.[81] The United States might try to encourage Armenia to move fully into the NATO orbit. If the United States were to succeed in this policy, then Russia might be forced to withdraw from its army base at Gyumri and an army and air base near Yerevan (currently leased until 2044), and divert even more resources to its Southern Military District.[82]

The United States might also renew efforts to bring Georgia into NATO. Georgia has long sought NATO membership; it joined the North Atlantic Cooperation Council in 1992 shortly after becoming independent and joined the Partnership for Peace program in 1994. In theory, the Allies put Georgia on a path to membership, but the 2008 Russo-Georgia war put this effort on indefinite hold. Georgia, however, has never given up on its NATO ambitions, participating in NATO operations in the Mediterranean, Kosovo, Afghanistan, and elsewhere.[83] If European opposition prevents Georgia's accession into the Alliance, the United States could establish bilateral security ties.

The United States could also do the same for Armenia and Azerbaijan, although both countries have shown less interest in joining

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[80] De Waal, 2003, p. 239.

[81] NATO, "Relations with Armenia," November 30, 2016c; "Armenia Reaches New Political Agreement with EU," Radio Free Europe/Radio Liberty, February 27, 2017.

[82] Mikhail Klimentyev, "Medvedev Secures Long-Term Foothold in Armenia," *Moscow Times*, August 22, 2010.

[83] See NATO, "Relations with Georgia," June 16, 2017c.

NATO. Like Georgia, both countries are members of the Partnership for Peace program and have contributed to NATO operations in Kosovo and Afghanistan over the years as well, albeit to lesser extents.[84]

Benefits

While the principal aim of these policies would be to extend Russia, closer relationships with Georgia, Azerbaijan, or Armenia might yield important secondary benefits for the United States. The geographic position of Azerbaijan makes it a prime location for both intelligence-gathering and deterrence measures relating to Iran, especially because many of Iran's Kurdish and Iranian populations are concentrated near the Azeri-Iranian border. Stronger ties with Georgia, hailed by the conservative Heritage Foundation as "one of America's best allies in Europe" for providing one the largest contributions of troops to Iraq and Afghanistan, could pay strategic dividends in the future.[85]

Increased U.S. involvement in the region could produce additional economic benefits as well. The Caspian Sea remains a key producer of both oil and natural gas. Indeed, the U.S. Department of Energy estimates that there are "48 billion barrels of oil and 292 trillion cubic feet of natural gas in proved and probable reserves in the Caspian basins. Almost 75 percent of oil reserves and 67 percent of natural gas reserves are located within 100 miles of the coast."[86] A closer political relationship with Azerbaijan would help secure continued access to these resources for the United States and—perhaps more important—for its allies in the future.

Risks

Azerbaijan—an authoritarian country often cited by nongovernmental organizations for its poor political and civil rights record—has shown

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[84] NATO, 2016c; NATO, "Relations with Azerbaijan," May 4, 2017b.

[85] Luke Coffey, *Strengthen Bilateral Defense Cooperation with Georgia*, Heritage Foundation, May 5, 2014.

[86] U.S. Energy Information Agency, *Caspian Sea*, Washington, D.C., August 13, 2013.

no interest in a closer relationship with the West or with Russia.[87] Moving it from this comfortably neutral stance would be difficult. Given the conflict between Azerbaijan and Armenia over Nagorno-Karabakh, any effort to strengthen ties with one would likely antagonize the other. If either country turned westward for its security, the other would likely turn toward Moscow. Finally, increased U.S. or NATO commitments in this region would be more likely to extend the West's resources than Russia's; as with the Baltic States, geography makes these countries more difficult for the West to defend than for Russia to threaten. All three countries are militarily inferior to Russia and geographically closer to it than to Western Europe, let alone the United States. As a result, these countries would be far more likely to be consumers than producers of NATO security, assuming such a guarantee were ever offered.[88]

Russia views this region as part of its traditional sphere of influence and, unsurprisingly, has concerns about NATO forces on its border. Historically, Russia has been willing to fight to prevent the region from developing too close a relationship with the West. Indeed, analysts point to a desire to stop Georgia's aspiration to join NATO and restore Russia's sphere of influence as one of the underlying factors behind the 2008 Russo-Georgia War.[89] Faced with the prospect of closer Georgian ties with NATO or the United States, Russia might well intervene again. This would impose military, economic, and political costs on Russia, but also be viewed as a setback for U.S. policy.

Likelihood of Success

None of these initiatives offers much hope of success. Attempts to develop closer relationships with Azerbaijan or flipping Armenia likely

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[87] In 2017, one nongovernmental organization rated Azerbaijan a 7 out of 7 (the worst possible ranking) for political rights and 6 out of 7 for civil liberties. Freedom House, "Azerbaijan," *Freedom in the World 2017,* Washington, D.C., 2017.

[88] Moreover, all three countries already receive between $60 million and $174 million in U.S. foreign aid, and this would probably need to be increased if the United States pushed for closer ties. United States Agency for International Development, "Foreign Aid Explore," web tool, December 12, 2017.

[89] Nichol, 2009, pp. 12–13.

would encounter serious obstacles. To be sure, Russia actively supports Armenia, and Russia and Azerbaijan have had several diplomatic and economic disputes, including the freezing of Azeri oil through the Baku-Novorossiysk pipeline.[90] However, Azerbaijan also has historically courted Russian support. Indeed, in August 2016, Russia and Azerbaijan agreed to a strategic partnership with a goal of increasing economic ties and military aid.[91]

Georgia is theoretically slated for NATO membership sometime in the distant future. It is hard to see this occurring for a variety of reasons, particularly as long as two pieces of its territory are occupied by Russia and claim to be independent states. Major European governments are opposed to any early move toward membership.

Any effort to bolster the Western orientation of states in the South Caucasus would require the support of Turkey, which provides these countries with their only outlet to the West. But Turkey's relationship with the United States remains shaky at best—particularly after the failed coup attempt of July 15, 2016, and Turkey's recent announcement that it would procure the Russian S-400 air defense system.

Armenia also has several reasons why it might be unwilling to break with Russian patronage. Russia has protected Armenia from Azerbaijan for decades, and Armenia might be reluctant to part with long-standing support, especially as long as the Nagorno-Karabakh region remains in dispute. Moreover, Russia is already Armenia's largest trading partner and has a $500 million investment in a railroad to provide that economic link, but the tracks must pass through either Georgia or Azerbaijan.[92] If Armenia were to strengthen its relationships with the West, Russia could retaliate against Armenia with sanctions, placing this trade at risk.

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[90] Niyaz Karim, "Reviewing Loyalties in Greater Caucasus," *Russia Beyond the Headlines*, August 16, 2013.

[91] "Putin: Russia-Azerbaijan Cooperation Grows to Strategic Partnership," TASS, August 8, 2016.

[92] Anthony Rinna, "Yerevan's Choice: Armenia and Its Integration into the Eurasian Customs Union," *Iran and the Caucasus*, Vol. 18, No. 4, 2014, p. 396.

Finally, resolving Nagorno-Karabakh is likely a prerequisite to Armenia breaking with Russia, but it is unclear precisely how the United States or NATO could resolve the decades-old conflict without privileging one side and antagonizing the other. NATO has encouraged both parties to resolve the conflict through the Minsk Group—led by the Russians.[93]

Conclusion

European allies are not likely to extend defense commitments into the South Caucasus in the foreseeable future. Short of that happening, there is only limited scope for more Western economic and political ties to the region, although even small changes could continue to stoke Russian anxieties and divert Russian resources in a minor way.

Measure 5: Reduce Russian Influence in Central Asia

Russia is part of two economic ventures related to Central Asia: the EEU and the Belt and Road Initiative. Russia has benefited from both, although in the case of the former, partners might have been harmed economically. There might be steps the United States and allies could take to reduce Russia's benefits from both of these.

The EEU was established at the beginning of 2015 with founding members Russia, Kazakhstan, and Belarus.[94] Since then, Armenia and Kyrgyzstan have also joined. Although the EEU is new, the institution builds on previous efforts at reintegrating the states of the former Soviet Union. Kazakhstan President Nazarbayev introduced the idea of Eurasian integration in the 1990s, and the Eurasian Economic Community was formed in 2000.[95] Russia, Kazakhstan, and Belarus then

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93 Jens Stoltenberg, NATO Secretary General, statement on Nagorno-Karabakh, April 5, 2016.

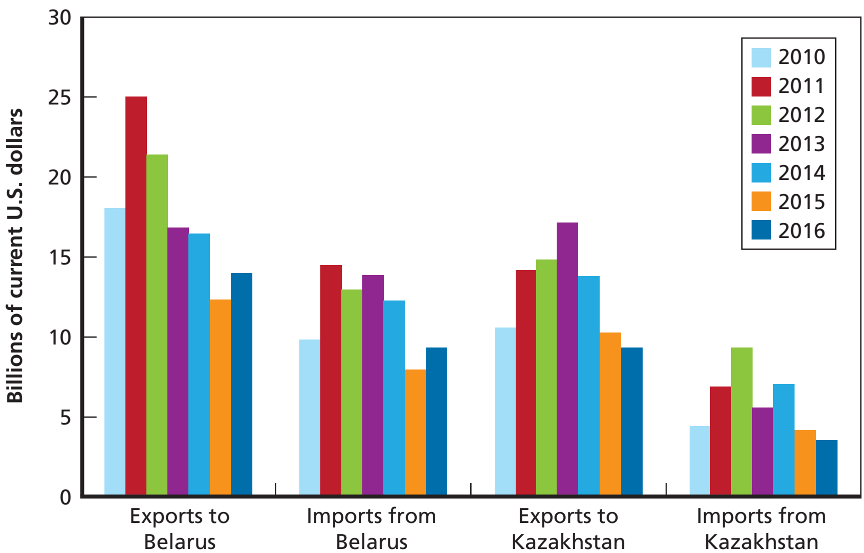
94 International Crisis Group, *The Eurasian Economic Union: Power, Politics and Trade*, Brussels: Europe and Central Asia Report No. 240, July 20, 2016.

95 Gulaikhan Kubayeva, "Economic Impact of the Eurasian Economic Union on Central Asia," Bishkek: Norwegian Institute of International Affairs and OSCE Academy, Central Asia Security Policy Briefs No. 20, February 2015.

launched a customs union in 2010 and a supranational Eurasian Economic Commission (EEC) in 2012. That EEC is now an institution of the EEU and is located in Moscow, staffed with 1,000 professionals.[96]

The EEU had the misfortune to launch when oil prices crashed. Given that two members (Russia and Kazakhstan) are major oil producers and the third (Belarus) relies on subsidies from Russia, the union got off to a rocky start (Figure 4.2). Russian goods exports to Belarus fell from $16.5 billion in 2014 to $12.4 billion in 2015; Russian goods exports to Kazakhstan fell from $13.9 billion in 2014 to $10.3 billion in 2015. Likewise, Russian goods imports from Belarus fell from $12.3 billion in 2014 to $8.0 billion in 2015, and Russian goods imports from Kazakhstan fell from $7.2 billion in 2014 to

Figure 4.2
Russian Goods Exports and the Founding Members of the EEU



SOURCE: United Nations, undated.

[96] International Crisis Group, 2016.

$4.3 billion in 2015.[97] Goods trade with Belarus rebounded somewhat in 2016 but was still lower than in 2014. Similarly, in 2017, Belarus-Russia trade continued to strengthen (with $12.5 billion in exports to Russia from Belarus and imports from Russia to Belarus increasing to $19.6 billion) but are still below their peak averages.[98] In contrast, goods trade with Kazakhstan continued to decline.[99]

Those declines in trade can hardly be blamed on the EEU, given the broader macroeconomic disturbances striking the members, but the EEU did have some negative characteristics. First, as a condition of membership, Kazakhstan had to raise tariffs on a large number of products, and nontariff barriers were introduced, such as increased clearance time for trucks from nonmember Central Asian countries.[100] Newer members Kyrgyzstan and Armenia also had to raise tariffs, and this has harmed Kyrgyzstan's role as a hub of re-exports for Chinese and Turkish goods.[101] However, there have been benefits. For Kyrgyzstan, in particular, which sends 92 percent of its migrant workers to Russia, membership has meant better treatment of those workers and a competitive edge over workers from nonmember counties.[102]

More broadly than the economic effects, there appears to be a conflict of visions. For Russia, the EEU is more of a geopolitical project than an economic one, while economics is the underlying rationale for other members. Furthermore, to the extent the ideology behind it is one of Eurasianism, there is disagreement among the members about exactly what this means.[103] Compounding these issues, the EEU has not operated well institutionally. National leaders have ignored the

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[97] United Nations, undated.

[98] "Belarus Named Russia's Fourth Largest Trading Partner Globally, First in CIS in 2017," Belarusian Telegraph Agency, February 2, 2018.

[99] Kazakhstan-Russian trade numbers for 2017 were not available at the time of this writing.

[100] Kubayeva, 2015.

[101] Martin Russell, "Eurasian Economic Union: The Rocky Road to Integration," European Union: Members' Research Service, European Parliamentary Research Service, Briefing PE 599.432, 2017.

[102] Russell, 2017.

[103] International Crisis Group, 2016.

EEC and the organization's rules and processes, and Russia has taken unilateral trade measures outside the EEU, such as its sanctions on European and U.S. agricultural imports.

The other major Eurasian initiative of which Russia is a part, the Belt and Road Initiative, was launched in 2013 with two speeches by Chinese President Xi Jinping, one announcing the Silk Road Economic Belt and the other a 21st Century Maritime Silk Road. Originally known as One Belt One Road, the venture has now become known by its current name. The Belt consists of a series of overland infrastructure networks through Russia and Central Asia to South Asia, the Middle East, and Europe.[104] The Road refers to maritime routes from China through the South China Sea and across the India Ocean to South Asia, the Middle East, Africa, and Europe. Chinese official statements have portrayed it as an effort to build a vast web of infrastructure—such as roads, railways, and pipelines—coupled with other efforts to build five types of "connectivity": policy or political coordination, transportation connectivity, trade and investment cooperation, financial integration and use of the Chinese renminbi as a currency, and stronger people-to-people connections.[105]

The Belt and Road Initiative has been cited as involving more than 60 countries and leading to almost $1 trillion of new investment. However, it is not a comprehensive strategy or plan. Chinese officials note that it is an initiative, not a strategy; that all countries are invited to participate; and that it is meant to complement existing national and regional initiatives.[106] Although many elements of the Belt and

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104 Alicia Garcia Herrero and Jianwei Xu, "China's Belt and Road Initiative: Can Europe Expect Trade Gains?" Brussels: Breugel, Working Paper Issue 5, 2016.

105 National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce of the People's Republic of China with State Council Authorization, *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road*, Beijing, March 28, 2015.

106 Alice Ekman, "China's New Silk Roads: A Flexible Implementation Process," in Alice Ekman, Françoise Nicolas, John Seaman, Gabrielle Desarnaud, Tatiana Kasatouéva-Jean, Şerif Onur Bahçecik, and Clélie Nallet, *Three Years of China's New Silk Roads: From Words to (Re)action?* Paris: Études de l'Ifri, Institute Français des Relations Internationales, February 2017.

Road Initiative predated Xi's announcements, often by many years, the broad effort is flexible with the potential to reshape Eurasian economic relations.[107] However, with limited capacity to absorb investment in many countries and the potential for politically driven projects, it could also result in high levels of growth-slowing indebtedness and wasteful spending.[108]

There are a number of ways that the United States and Europe could build off the EEU and the Belt and Road Initiative to extend Russia economically. These are based on weaknesses and uncertainties embedded in the plans.

At a summit in Moscow in May 2015, Putin and Xi agreed that the EEU and Belt and Road complemented each other and that the two countries would coordinate the initiatives.[109] However, the projects clash economically because the EEU creates barriers, whereas the Belt and Road Initiative focuses on lowering them.[110] Furthermore, the Belt and Road Initiative could decrease Russian influence in Central Asia, one reason Russia has opposed a free trade agreement as part of the Shanghai Cooperation Organization.[111]

Central Asian countries, although reliant on Russia for security and hopeful for Chinese investment, do not welcome and even fear domination by either country. They see EU involvement as a way to limit the activities of both giants and even to help with the institutional aspects of integration.[112] It is not clear that they view the United States in the same light, although the start of a new U.S.-Central Asia Initia-

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[107] Wade Shepard, "I Spent Two Years on China's Belt and Road, and This Is What I Found," *Forbes*, May 13, 2017c.

[108] Peter Wells and Don Weinland, "Fitch Warns on Expected Returns from One Belt, One Road," *Financial Times*, January 25, 2017.

[109] Kremlin, "Press Statement Following Russian-Chinese Talks," Moscow, May 8, 2015a.

[110] Mathieu Duchâtel, François Godement, Kadri Liik, Jeremy Shapiro, Louisa Slavkova, Angela Stanzel, and Vesella Tcherneva, "Eurasian Integration: Caught Between Russia and China," London: European Council on Foreign Relations, June 7, 2016.

[111] Tatiana Kasatouéva-Jean, "Russian Perceptions of OBOR: From Threat to Opportunity," in Ekman et al., 2017.

[112] Duchâtel et al., 2016.

tive known as the C5+1 in 2015 might signal that they do. The United States and the Central Asian countries have agreed to five projects, including security, competitiveness, transport, energy, and climate.[113] In addition, at a meeting in Riyadh in May 2017, Kazakhstan President Nazarbayev, speaking to U.S. Secretary of State Rex Tillerson, expressed hope for stronger bilateral ties.[114]

As part of Belt and Road, China is establishing railway and other transport corridors to Europe, with 29 Chinese cities linked to Europe by railway as of late May 2017.[115] Although most routes run through Russia, one bypass runs through Kazakhstan, from Khorgos on Kazakhstan's eastern border with China to the western Kazakhstan port of Aktau on the Caspian Sea and then by ship to Azerbaijan and on to Europe.[116] Such a route, bypassing Russia, reportedly causes tension between China and Russia.[117]

This combination of vulnerabilities suggests a number of possible actions, a few of which the United States could take alone, but most of which would require cooperation with Europe or are Europe-only approaches.

The first action involves trade and technical agreements. Kazakhstan, Kyrgyzstan, and Armenia are members of the EEU and thus cannot sign separate trade agreements with the United States or Europe. Furthermore, the framework of the EU's association agreements and deep and comprehensive free trade area agreements would need the partner country to control its external tariffs,[118] and the EU is not seeking to

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113 U.S. Department of State, "U.S.-Central Asia (C5+1) Joint Projects," Washington, D.C., via U.S. Embassy Dushanbe, August 15, 2016.

114 "Nazarbaev Meets Tillerson, Voices Hope for Closer Cooperation," Radio Free Europe/Radio Liberty, May 22, 2017.

115 Sidney Leng, "Next Stop Belarus: China Gets Rolling on Direct Shenzhen-Minsk Freight Rail Link," *South China Morning Post*, May 23, 2017.

116 Kasatouéva-Jean, 2017; Wade Shepard, "A Look Inside Aktau, Kazakhstan's Other Hub on the 'New Silk Road,'" *Forbes*, April 15, 2017a; Wade Shepard, "The Central Station of the New Silk Road Has Emerged," *Forbes*, April 29, 2017b.

117 Kasatouéva-Jean, 2017.

118 International Crisis Group, 2016.

bring Central Asian countries into association agreements anyway; only Kazakhstan would be a suitable participant and it would be unlikely to risk Moscow's probable objection. However, EEU members could sign a variety of other agreements; the Kazakhstan Enhanced Partnership and Cooperation Agreement, signed with the EU in October 2015, is one example.[119] Accordingly, the United States could continue to develop deeper economic relations with Central Asian EEU members, as envisioned in the C5+1 program, and even explore free trade agreements with non-EEU members. Likewise, Europe could deepen its economic cooperation and institution-building in Central Asia, including better coordinating its various efforts.[120] Because of geographic remoteness from the United States, free trade agreements with Central Asian countries would have only marginal effects. Attempting to negotiate would also incur political costs, such as objection from Moscow or U.S. human rights organizations.

The second action involves whether and how to engage with the EEU. Neither the United States nor Europe should deal with the EEU as an institution. As noted, Moscow embargoed EU agricultural products unilaterally, without EEU support. Instead, EEU member Belarus served as a conduit for those products into Russia, helping Europe bypass the embargo.[121] Furthermore, the EEC has few mechanisms for forcing members to follow its decisions, and there is no resolution mechanism for complex disagreements except through political leaders.[122] Dealing bilaterally could not only weaken the sway of Russia via the EEU over EEU members but might actually be more effective at forging agreements.

A third action involves helping develop transportation corridors that bypass Russia. One of the five projects under the C5+1 initiative is transport corridor development. Specifically, this would help make trade within Central Asia more efficient and create a more efficient non-

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[119] "Council Decision (EU) 2016/123 of 26 October 2015," International Agreements, *Official Journal of the European Union*, Luxembourg, Vol. 59, L29, February 4, 2016.

[120] Duchâtel et al., 2016.

[121] International Crisis Group, 2016.

[122] International Crisis Group, 2016.

Russian route to Europe. Taking this action could include help with transportation planning, aid for road and rail infrastructure improvement, and aid to improve the operations of the Kazakhstan ports of Aktau and Kuryk to the Azerbaijan port of Baku. Politics allowing, there could also be assistance in creating a better land route via Turkmenistan through Iran to Turkey, bypassing the intermodal logistical hurdles of traversing the Caspian Sea. The United States could join with Europe to support—or Europe could unilaterally accelerate—the Transport Corridor Europe-Caucasus-Asia initiative, conceived in 1993 with nine non-EU countries and expanded after 1998 with an additional five non-EU countries.[123] The EU stopped funding this initiative in 2009 and funding had not been restored as of June 2016; restoring it could help accelerate the project.[124] Furthermore, both the United States and the EU could support Chinese transport corridor efforts that bypass Russia. There is room for improvement: Routes from China through Central Asia feature "border delays, hefty customs fees, [and] poor roads and railways," all of which are amenable to policy action.[125] The geographic hurdles of mountain ranges in Kyrgyzstan and Tajikistan are less amenable, however.

Benefits

Engaging more with Central Asia could have modest benefits. Expanding Central Asian connectivity to the rest of the world could reduce that area's trade with Russia. It must be noted, however, that economic growth within these countries would likely have the opposite effect and increase their trade with Russia because economic size and trade are correlated. However, greater connectivity suggests that the *proportion* of total trade with Russia would likely fall. Better trade routes could also decrease the amount of transit through Russia, lowering Russian revenues from that trade. Finally, if successful, spurring growth in

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[123] Şerif Onur Bahçecik, "OBOR and Turkey's Turn to the East," in Ekman et al., 2017.

[124] Duchâtel et al., 2016.

[125] Filippo Costa Buranelli, "Why China's $1 Trillion New Silk Road Plan Is Being Greeted Coolly by the West," *The Conversation*, April 5, 2017.

Central Asia might also increase trade with the United States and benefit the U.S. economy, albeit to a limited extent.

Risks

There are several risks to increasing engagement with Central Asia. First, it could be costly. These are distant, sparsely populated countries that might not have the capacity to absorb large amounts of investment efficiently; this could mean that a more moderate, longer-term approach might be a better strategy. Transit routes through Russia are cheaper, and developing alternative transit routes through Central Asia could require subsidies. Further strengthening transit routes is also likely to benefit China. If U.S. policymakers are concerned about a rising China, then economically extending Russia in this domain could mean helping a rival power economically.

An additional risk arises from Russia's perceptions of (and potential reactions to) U.S. actions. Russia views Central Asia as an important area of influence. Likewise, Central Asia relies on Russia for security, especially with challenges from terrorism and a deteriorating situation in Afghanistan. A challenge to Russian primacy in this region could invite unwelcome retaliation from Russia that could range from cyber actions against the United States, its allies, and the Central Asian countries to the movement of Russian troops into these countries.

Likelihood of Success

Increasing engagement with Central Asia could have many benefits. It could expand market opportunities for the United States and its allies and partners; lead to economic development in the region; and create closer cooperation between the region and the United States in a number of areas, including economic, political, and even scientific domains. However, it would be unlikely to economically extend Russia without a very large monetary cost to the United States, and most Central Asian countries likely would be reluctant partners in any campaign aimed against Russia. Geographic proximity to Russia and China, existing trade links and security links, and historical patterns of cooperation suggest that these countries would prefer to stay within the Russian orbit and seek cooperation with it, even as they diversify their relations. The real work

of extending Russia economically in Central Asia would fall to China, and that potential competition is in the early days of being manifested.

Conclusion

Reducing Russian influence in Central Asia would be very difficult and could prove costly, and Russia's influence might be reduced there in the long term without this measure. China will continue to expand there through its Belt and Road Initiative, and Japan and India have also engaged with the region, all of which could reduce Russia's dominance. The main reason for increasing U.S. engagement in the region would be to benefit the United States: gaining modest help in implementing U.S. foreign policy goals, creating new opportunities for U.S. businesses, and channeling China's outward efforts in directions amenable to the United States. Without great cost, however, increased engagement would be unlikely to extend Russia much economically, and backlash would need to be guarded against.

Measure 6: Challenge Russian Presence in Moldova

Nestled between Romania and Ukraine with no seacoast of its own, Moldova, a former republic of the Soviet Union, is now an independent country. Transnistria is a Russian-speaking enclave within Moldova that currently hosts a Russian peacekeeping (some might say occupation) force and army base. John Todd Stewart, who was U.S. ambassador to Moldova from 1995 to 1998, described Moldova as "the Florida of the [Soviet Union], the republic with the most temperate climate, which was attractive to retirees. These people do not speak Romanian and have no connections with the area, period."[126] As the Soviet Union was collapsing in 1990, Transnistria—home to about a half-million Russophone residents today—broke away from Moldova.[127] A brief

[126] Association for Diplomatic Studies and Training (ADST), "Moldova's Transnistrian Conflict," *Huffington Post*, July 26, 2016.

[127] Laura Mallonee, "Meet the People of a Soviet Country That Doesn't Exist," *Wired*, March 7, 2016.

conflict between pro-Transnistrian forces and the Moldovan police and military ended inconclusively.[128] Moldova never reasserted its control over the breakaway region, but no member of the United Nations—including Russia—recognized its existence either.[129] Therefore, Transnistria has existed in a sort of netherworld for the past several decades.

Officially, Russian policy toward Transnistria is ambiguous. Russia's Foreign Policy Concept includes only a single, rather inarticulate statement:

> Russia strongly advocates a political and diplomatic settlement of conflicts in the post-Soviet space, specifically, Russia works within the existing multilateral negotiating mechanism to find an inclusive solution to the Transnistrian issue, respecting the sovereignty, territorial integrity and neutral status of the Republic of Moldova in determining the special status of Transnistria.[130]

Russia has stationed between 1,000 and 2,000 peacekeepers in Transnistria (most of whom are recruited locally from the Russian-speaking population) and provides the residents with free natural gas and some pension assistance.[131] According to some estimates, this amounts to $150 million in support a year.[132] For its part, Transnistria keeps a pro-Russian government and prominently displays banners around town declaring that "Russia brings peace and stability."[133]

During the 1990s, Moldova received $25 million a year from the United States Agency for International Development—making it one of the larger per capita recipients of U.S. aid in the former Soviet bloc.[134]

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[128] ADST, 2016.

[129] Mallonee, 2016.

[130] Ministry of Foreign Affairs of the Russian Federation, 2016.

[131] Mallonee, 2016; Alexander Smoltczyk, "Hopes Rise in Transnistria of a Russian Annexation," *Der Spiegel*, April 14, 2014.

[132] Miles Atkinson and Fleur De Weerd, "Transnistria: A Country That Doesn't Exist, but Has the Guns to Make You Think Otherwise," *Huffington Post*, January 8, 2013.

[133] Atkinson and De Weerd, 2013.

[134] ADST, 2016.

The United States also sought to promote resolution of the Transnistrian problem via the Organization for Security and Co-operation in Europe.[135] In 2005, the EU also established the European Union Border Assistance Mission to Moldova and Ukraine, staffed by approximately 200 staff and field officers. Part of the assistance mission's goal is to "contribute to the peaceful settlement of the Transnistrian conflict through confidence building measures and a monitoring presence at the Transnistrian segment of the Moldova-Ukraine border."[136] Unfortunately, these efforts have not successfully resolved the dispute.

The United States could encourage Transnistria's youth (who, according to some journalistic accounts, might be more pro-West than their elders) to push their pseudo-state to leave the Russian orbit.[137] Transnistria's Russophile population and strong institutions—including a secret service still called the KGB—raise questions about this option's feasibility.[138] Moreover, even if this policy were successful and Transnistria rejoined Moldova, it could very well be a cost-imposing strategy against the United States and its allies rather than on Russia, given that Transnistria is impoverished and would likely require substantial Western aid.[139]

The United States could also push for closer NATO and European integration with Moldova. While Moldova officially remains neutral, it already adopted the Partnership for Peace program in 1994 and Individual Partnership Action Plan in 2006.[140] Moldova also contributed a token number of peacekeepers to the Kosovo operation beginning in 2013.[141] Under this option, the United States would encourage

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135 ADST, 2016.

136 European Union Border Assistance Mission to Moldova and Ukraine, "Who We Are?" webpage, undated.

137 Atkinson and De Weerd, 2013.

138 Smoltczyk, 2014.

139 Atkinson and De Weerd, 2013; Smoltczyk, 2014.

140 Ministry of Foreign Affairs and European Integration of the Republic of Moldova, "Moldova–NATO Relations," webpage, undated.

141 Government of Moldova, "Moldovan Troops to Participate in International Peacekeeping Mission in Kosovo," undated.

closer NATO cooperation with Moldova and possibly eventually offer it membership.

Finally, Washington could urge Moldova to terminate the July 21, 1994, cease-fire agreement between Moldovan President Mircea Snegur and Russian President Yeltsin that serves as the legal basis for Russian "peacekeepers" in Transnistria.[142] Ultimately, the intent here would be to increase the diplomatic costs for Russia to continue its presence in the area.

Benefits

Such an effort might be welcomed in Romania. Moldova, then known as Bessarabia, was once part of Romania and many Moldovans speak a language similar to Romanian. In the early 1990s, there was some discussion of whether Moldova would eventually merge into Romania.[143] Even though that has not yet occurred, Romania still takes a protective attitude toward its smaller eastern neighbor.[144]

A policy aimed at supporting and unifying Moldova might also help resolve the perennial threat of crime and political conflict in this region. Historically, Transnistria has had high levels of organized crime, mostly engaged in black market trade.[145]

Risks

Russia might employ economic sanctions against Moldova. Before the Ukraine crisis, Russia accounted for 23 percent of Moldova's foreign direct investment, 26 percent of its exports, and 14 percent of its imports.[146] In some sectors, such as Moldova's fruit exports, Russia rep-

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[142] Cristi Vlas, "President Igor Dodon Believes Russian Peace-Keepers in Transnistria Ensure Stability," Moldova.org, January 19, 2017.

[143] ADST, 2016.

[144] Based on discussion with Romanian policymakers in Bucharest, Romania, June 23, 2016.

[145] ADST, 2016; U.S. Department of State, Bureau of Diplomatic Security, "Moldova 2017 Crime and Safety Report," webpage, Washington, D.C., January 24, 2017.

[146] Kamil Całus, "Russian Sanctions Against Moldova. Minor Effects, Major Potential," *OSW Commentary*, Centre for Eastern Studies, November 6, 2014.

resented 60–70 percent of its export market.[147] Beginning in September 2013, Russia embargoed key Moldovan industries, such as alcoholic beverages, meat, fruit, and vegetables in response to Moldova signing an association agreement with the EU.[148] Moldova sold its agricultural goods to other buyers, but the embargo still dealt a significant blow to its economy and Moldova has pleaded with Russia for relief.[149] Presumably, any action on Transnistria would dash any Moldovan hopes of relief from the embargo and likely encourage additional sanctions.

Finally, in the absence of Russian peacekeepers, the Transnistrian regime and population might violently resist incorporation into Moldova, a resistance that Moscow could abet from afar. Indeed, it is probably a concern about such a conflict that leads Moldova to tolerate the continued Russian military presence. Assuming such resistance could be overcome, the United States and the EU would be expected to pick up the tab for any postconflict reconstruction.

Likelihood of Success

Moldovan cooperation in an effort to expel the Russians would not be easy to secure. In an interview with Radio Free Europe/Radio Liberty, Moldova's pro-Russian President Igor Dodon stated, "A NATO office in Chisinau [Moldova's capital], in a neutral country, is a provocation. I do not want this. I want neither NATO nor this Russia-led [military] alliance as far as armed forces are concerned."[150] Dodon is also a fan of keeping a Russian presence in Transnistria. In January 2017, he stated, "It is necessary to understand that peacekeepers at the Nistru River did not appear accidentally but because of the conflict. And they were and remain the guarantor of certain stability. They are there to ensure trust between the banks."[151] Despite the fact that political power lies with Mol-

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[147] Całus, 2014.

[148] Całus, 2014.

[149] Corneliu Rusnac, "Moldova's Hopes That Russia Will Lift Trade Ban Are Dashed," Associated Press via *San Diego Union Tribune*, July 5, 2016.

[150] "Moldovan President: Planned NATO Office in Chisinau 'Provocation,'" Radio Free Europe/Radio Liberty, February 14, 2017.

[151] Vlas, 2017.

dova's prime minister rather than its president, Dodon was still the first president to be directly popularly elected since 1997 and consequently an important symbolic figure.[152] Moreover, given the blow that Russian sanctions had to the Moldovan economy, Dodon might not be alone.

On the other hand, after the Russian embargo, Moldovan exports to the EU grew by 27 percent and EU aid to Moldova amounted to some 335 million euros from 2014 to 2017.[153] The EU also gave Moldova visa-free access in 2014, a key benefit for a landlocked country.[154]

Conclusion

The expulsion of Russian troops from Moldova would be a blow to Russian prestige, but it would also save Moscow money and quite possibly impose additional costs on the United States and its allies. It might be worth trying as an essentially punitive measure that would be part of a broader campaign to limit Russian prestige and influence, as discussed in the next chapter, but success would not extend Russia.

Recommendations

Extending Russia through geopolitical competition is a fundamentally difficult and dangerous proposition. One might bait Russia into extending its foreign commitments, but only at the risk of serious setbacks to local U.S. partners. Even if such efforts succeeded in generating Russian withdrawals, the result would be the opposite of an extension (Table 4.1).

Providing support for Syrian anti-regime rebels and trying to instigate a color revolution in Belarus would both be quite risky, albeit for different reasons. In the case of Syria, additional aid to the rebels might jeopardize other U.S. policy priorities, most notably combating radical Islamic terrorism. Such a move also risks further destabilizing the entire region. Moreover, this option might not even be feasible, given the fragmentation and decline of the Syrian opposition. Instigat-

[152] "Moldovan President: Planned NATO Office in Chisinau 'Provocation,'" 2017.

[153] Andrew Rettman, "Moldova Turns from EU to Russia," *EU Observer*, January 18, 2017.

[154] Rettman, 2017.

Table 4.1
Findings for Geopolitical Measures

Measure	Benefits	Costs and Risks	Likelihood of Success
Provide lethal aid to Ukraine	High	High	Medium
Increase support to the Syrian rebels	Medium	High	Low
Promote regime change in Belarus	High	High	Low
Exploit tensions in the South Caucasus	Low	Medium	Low
Reduce Russian influence in Central Asia	Low	Medium	Low
Challenge Russian presence in Moldova	Low	Medium	Low

ing a revolution in Belarus would pose several practical challenges but also threatens one of Moscow's core security interests. Very likely, a revolution in Belarus would provoke a strong response from Russia and might even start another armed conflict if elements in Belarus were to resist, as occurred in Ukraine.

Geography and history make it difficult for the United States to compete with Russia in the Caucasus economically and militarily. Developing a closer relationship with Moldova and removing the local Russian troop presence there would be seen as a diplomatic defeat for the Putin regime.

Russia's commitment in Eastern Ukraine is its greatest point of external vulnerability; local opposition is active and Ukraine is a larger and more capable adversary than any of the other states where Russian troops are committed. Even here, however, Russia possesses local military superiority and thus controls the possibility of escalation dominance. Any increase in U.S. military arms and advice to Ukraine would need to be carefully calibrated to increase the costs to Russia of sustaining its existing commitment without provoking a much wider and even more violent conflict.

Finally, any geopolitical moves to extend Russia would also need to consider other options that (for reasons of length and resources) were not considered here in depth—namely, intensifying NATO's cooperation with Sweden and Finland, pressuring Russia's claims in the Arctic, and checking its influence in the Arctic.

CHAPTER FIVE

Ideological and Informational Measures

The prospect of a popularly supported regime change in Russia, while currently unlikely, appears to be of substantial concern to the Kremlin. The widespread protests coinciding with the controversial Duma and presidential elections in 2011–2012 led the regime to take a series of steps to more tightly restrict political freedoms in Russia and limit outside influence.[1] The successful 2013–2014 Euromaidan protests in Ukraine that led to the fall of the Yanukovich government touched off a dramatic Russian response for many reasons, but among these was the concern that these protests could provide a demonstration effect for anti-regime protests in Russia.[2] Meanwhile, Russia has orchestrated a series of efforts of its own in recent years to undermine Western political institutions and increase Russia's standing and influence in such countries as the United States, France, and Montenegro.[3] Despite the broad and provocative nature of these Russian efforts, a coordinated response on the part of the United States and its allies designed to deter such efforts has not occurred. Given Russia's own domestic vul-

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[1] Vladimir Gel'man, *Authoritarian Russia: Analyzing Post-Soviet Regime Changes*, Pittsburgh, Pa.: University of Pittsburgh Press, 2015, p. 103.

[2] Mark Kramer, "Why Russia Intervenes," Perspectives on Peace and Security, Carnegie Corporation, August 2014.

[3] Office of the Director of National Intelligence, "Assessing Russian Activities and Intentions in Recent U.S. Elections," Washington, D.C., Intelligence Community Assessment, ICA 2017-O1D, January 6, 2017; Andy Greenberg, "The NSA Confirms It: Russia Hacked French Election 'Infrastructure,'" *Wired*, May 9, 2017; Roland Oliphant, "Why Are Russians Protesting? The Investigation Accusing the Prime Minister of Corruption That Sparked Biggest Demonstrations in Five Years," *The Telegraph*, March 27, 2017.

nerabilities, Western policymakers seeking to deter or discredit Russia would appear to have found fertile ground in the regime's sensitivity to domestic unrest and foreign ostracism.

This chapter assesses the potential benefits, risks, and difficulties in execution of a hypothetical Western effort to extend Russia by undermining the appeal of the regime at home and abroad. One potential benefit of such a strategy is that it could preoccupy Russia with internal struggles, making the nation less likely to pose a threat to its neighbors. This strategy could also serve to deter or discredit future Russian influence campaigns against Western countries. The potential difficulties and risks involved are substantial, however. Moscow's long-standing concern about regime security has led it to adopt a series of measures to better control the information space, electoral system, and security services. The Kremlin has also long argued that legitimate manifestations of domestic unrest are nothing more than Western-supported plots and has repressed them on those grounds. Adopting policies with the potential to legitimate this paranoia could run counter to Western efforts to gradually shift relations with Moscow in a more constructive direction, and it could endanger the safety of Russian domestic regime critics, many of whom currently incur great risks to their own security but still retain some limited freedom of action.[4] Moreover, even if such a strategy were successful in undermining Russian domestic stability, Moscow could respond to such efforts not by turning inward but by lashing out and pursuing a diversionary conflict with the West. This is one of the higher-risk options under consideration in this report.

Pathways for Influence Operations

The hold that regimes have on power can weaken or collapse for many reasons, from external invasion to coups to a withdrawal of popular support. While Russia does have genuine external security concerns, which are covered elsewhere in this report, this chapter focuses on

[4] Andrew E. Kramer, "More of Kremlin's Opponents Are Ending Up Dead," *New York Times*, August 20, 2016b.

potential domestic threats to regime stability. In particular, it focuses on the prospects for widespread popular dissatisfaction with the regime.

The prospects for popular dissatisfaction in Russia are closely intertwined with the domestic legitimacy of the regime. Political regimes are strong and likely to remain in place unchallenged when their populations and key elite actors view them as legitimate. When a regime's legitimacy is strong, the likelihood of a successful challenge to its authority is low, both because such a challenge is less likely to be initiated and because such challenges are likely to draw less support. By contrast, when a regime's legitimacy is weak, challenges to its authority might be more likely to be initiated and the regime is likely to have fewer supporters in response to such a challenge. As seen in numerous cases over the past several decades—such as the Philippines, the Soviet Union, Serbia, Egypt, Tunisia, and Ukraine—illiberal regimes previously considered to be strong lost their hold on power to popular forces once the regimes came to be viewed as illegitimate.[5] Election upsets, mass protests, and civil disobedience can lead to a change in regime outside of established channels, particularly if such upheavals are followed by a refusal of the security services to use force against the civilian population. Understanding the status of a regime's legitimacy is therefore a key task when trying to assess its long-term prospects for stability.

Legitimacy is difficult to define and to measure. In the academic literature, however, there is a general consensus that a regime is legitimate to the extent to which it has three characteristics:[6]

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[5] Laryssa Chomiak "The Making of a Revolution in Tunisia," *Middle East Law and Governance*, Vol. 3, No. 1–2, 2011; Kurt Schock, *Unarmed Insurrections: People Power Movements in Nondemocracies*, Vol. 22, Minneapolis, Minn.: University of Minnesota Press, 2005, p. 73–79.

[6] For a more detailed discussion of these criteria, see David Beetham, *The Legitimation of Power*, Basingstoke, UK: Palgrave Macmillan, 2013, pp. 17–18; Jean-Marc Coicaud, *Legitimacy and Politics: A Contribution to the Study of Political Right and Political Responsibility*, Cambridge, UK: Cambridge University Press, 2002, p. 10; Bruce Gilley, *The Right to Rule: How States Win and Lose Legitimacy*, New York: Columbia University Press, 2009, p. 8.

- **Acquisition of power:** The regime followed accepted rules to acquire its political power, such as by winning a fairly contested national election, properly inheriting its power from the previous ruler, or other mechanism.
- **Exercise of power:** The regime's exercise of power is viewed as justified in the pursuit of broadly shared national goals, such as guaranteeing security or increasing living standards, rather than narrower goals that serve only the members of the regime.
- **Evidence of consent:** The regime has evidence of broad consent of the governed to its power, such as through widespread participation in elections; demonstrations of support; and limited, if any, counter-regime protests or demonstrations.

These three characteristics serve not only to define legitimacy but also to highlight different aspects of legitimacy that have the potential to erode or strengthen. In so doing, they provide a framework through which efforts to question the stability of the current Russian regime can be organized and assessed. Before proceeding to a consideration of these efforts, we will first assess the legitimacy of the regime as it stands and explore key factors that would affect the efficacy of these efforts, such as the ideology of the regime and the media environment.

Current Status of Russian Regime Legitimacy

The Putin regime enjoys relatively favorable assessments on the three aforementioned criteria, suggesting that its hold on power in Russia in the short term is likely to be strong. In each case, however, there are also signs for concern for Moscow, highlighting potential vulnerabilities that could worsen of their own accord or be exploited by both internal and external actors.

Acquisition of Power

After adopting a democratic constitution in the wake of the collapse of the Soviet Union, Russia experienced a turbulent period of relatively free political expression and elections in the 1990s. Throughout his first

two terms as president from 2000 to 2008, Putin gradually increased control over the political system and eliminated potential rival sources of power.[7] Today, Russia retains the process of elections to select its national and local leaders, but these are now largely stage-managed affairs, with the Kremlin exerting considerable control over which candidates will be allowed to run, what media coverage they will receive, and how the votes will be counted.[8] Nonetheless, elections in Russia remain an important means by which the regime establishes its legitimacy. Continued widespread participation in elections and limited protests of their results can signal popular acquiescence to continued rule by the current regime, even if the elections themselves are neither free nor fair. Furthermore, election results can only be manipulated so far before the interference becomes widely perceived, undermining the credibility of the outcome.

Putin was most recently elected to the Russian presidency in March 2018 to another six-year term. This was his fourth term as president (having previously been elected in 2000, 2004 and 2012.[9] Putin's margin of victory in the election was sizable (receiving roughly 76.6 percent of the vote) and his highest ever.[10] Like previous elections, there were accusations of voting irregularities, and some opposition leaders (most notably Alexei Navalny) were blocked from running altogether.[11] Putin's 2012 election drew, perhaps, even more concern over vote-rigging. In that campaign, although questions regarding the vote totals were widespread, most analysts agreed that any Election Day rigging

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7 Steven Lee Myers, *The New Tsar: The Rise and Reign of Vladimir Putin*, New York: Alfred A. Knopf, 2015, pp. 212–213, 245–252, 261–262.

8 Jim Nichol, *Russia's March 2012 Presidential Election: Outcome and Implications*, Washington, D.C.: Congressional Research Service, R42407, March 14, 2012, pp. 2–6; Jim Nichol, *Russia's December 2011 Legislative Election: Outcome and Implications*, Washington, D.C.: Congressional Research Service, R42118, December 13, 2011, pp. 4–7.

9 Kathy Lally and Will Englund, "Putin Wins Election as Russian President; Opponents Claim Widespread Fraud," *Washington Post*, March 4, 2012.

10 Trevor Hughes, "Putin Elected as Russia's President for Another Six-Year Term," *USA Today*, March 18, 2018.

11 Hughes, 2018; "Alexei Navalny Barred from Russia Presidential Poll," BBC News, June 23, 2017.

by the state likely changed the margin of the vote but not the outcome, given the regime's structural advantages in the campaign.[12] The same cannot necessarily be said for the Duma elections of December 2011, the results of which touched off widespread protests. United Russia was reported as having won 47 percent of the vote and a majority of seats, but some analysts suggested that the party's true total might have been 36 percent, which would have left it well short of a majority.[13] The most recent Duma elections in September 2016 were also likely marred by substantial fraud, though popular protests in response were limited.[14] The current regime's adherence to formal election procedures has been relatively strict, although it has also felt free to change those rules as needed with some frequency.[15] On balance, then, Russian perceptions regarding whether their leaders have legitimately acquired power are likely mixed, with Putin having a stronger claim to the presidency than other actors to their positions.

Exercise of Power

The programmatic justification for the Putin regime has shifted over time. In the 2000s, high levels of economic growth and a consolidation of the state following the turbulent 1990s were most frequently cited as evidence of government accomplishment and goals.[16] From 1999

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[12] Lally and Englund, 2012; Ellen Barry and Michael Schwirtz, "After Election, Putin Faces Challenges to Legitimacy," *New York Times*, March 5, 2012.

[13] Ruben Enikolopov, Vasily Korovkin, Maria Petrova, Konstantin Sonin, and Alexei Zakharov, "Field Experiment Estimate of Electoral Fraud in Russian Parliamentary Elections," *Proceedings of the National Academy of Sciences*, Vol. 110, No. 2, 2013.

[14] Valentin Baryshnikov and Robert Coalson, "Numbers Don't Lie: Statistics Point to Massive Fraud in Russia's Duma Vote," Radio Free Europe/Radio Liberty, September 20, 2016; Andrew Osborn and Maria Tsvetkova, "Putin Firms Control with Big Win for Russia's Ruling Party," Reuters, September 19, 2016.

[15] Mikhail Turchenko and Sergey Shevchuk, *Executive Branch and Major Electoral Reforms in Russia*, Moscow: National Research University, Higher School of Economics, Working Paper BRP 31/PS/2015, 2016.

[16] Erin Carriere-Kretschmer and Kathleen Holzwart, "Putin's Popularity Propels Chosen Successor in Russian Election," Pew Research Center, February 27, 2008; William H. Cooper, *Russia's Economic Performance and Policies and Their Implications for the United States*, Washington, D.C.: Congressional Research Service, RL34512, June 29, 2009.

to 2008, economic growth averaged nearly 7 percent, which led to high approval ratings for the regime as Putin handed over the presidency to Medvedev in 2008.[17] Since Putin's return to the presidency in 2012, the government's narrative has changed: It now relies much more on the regime's ability to defend the nation against gathering external threats and to reassert Russia's role as a great power in the world.[18] The country's economic fortunes have declined markedly, slumping after the 2008 global financial crisis and worsening again after 2014 when a sustained drop in oil prices—and, to a lesser extent, Western sanctions—radically reduced government revenues and economic growth and forced painful cuts in the domestic budget.[19] The regime has taken advantage of Western sanctions politically by attributing economic hardships to them, obscuring the more-important roles of the decline in oil prices and structural problems in the Russian economy.[20]

This turn toward nationalism as the justification for the regime's exercise of power remains popular. Following a nadir of 54 percent in 2013, Putin's public support has rebounded in the aftermath of the annexation of Crimea in 2014 to sustained levels above or near 80 percent.[21] However, this public support appears to be increasingly narrowly based, with support for the leadership of President Putin personally quite high and support for other government institutions at very low levels.[22] Moreover, it is uncertain whether public support for nationalist goals alone will prove to be sustainable over the long term, absent an improvement in economic conditions.

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17 Cooper, 2009.

18 Gel'man, 2015, pp. 127–128.

19 Movchan, 2017.

20 Michael Birnbaum, "A Year into a Conflict with Russia, Are Sanctions Working?" *Washington Post*, March 27, 2015.

21 Julie Ray and Neli Esipova, "Economic Problems, Corruption Fail to Dent Putin's Image," Gallup World Poll 2016, March 28, 2017.

22 For example, only 22 percent of Russians in a 2016 poll said they had confidence in the Duma. "Russians Losing Trust in Government and Putin—Poll," *Moscow Times*, October 13, 2016.

Evidence of Consent

Despite Putin's overall high levels of popularity, evidence of discontent with the regime more broadly is increasing. While the 2016 Duma elections and their results were not accompanied by mass protests, the early months of 2017 saw several surprisingly large-scale demonstrations protesting corruption.[23] Russian leaders appear concerned about the potential for such protests to grow surrounding Putin's anticipated re-election to a fourth term in 2018.[24] While protests have historically been generally confined to Moscow and Saint Petersburg—where wealthier, better-educated Russians form the core of anti-regime sentiment—the March 2017 protests were notable for occurring throughout Russia.[25] Rising discontent and support for protests in Russia might have been foreshadowed in the record-low turnout in the 2016 Duma elections and raised what turned out to be unnecessary concerns for turnout levels in the 2018 presidential elections.[26]

Russian Domestic Environment

Efforts to question the domestic legitimacy of the Russian regime could target any of the three aforementioned dimensions. However, before such hypothetical efforts can be robustly assessed, two aspects of the Russian domestic environment that would greatly affect such efforts need to be understood: the ideological context of the legitimacy of the Russian regime and the domestic media environment in Russia.

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23 Julia Ioffe, "What Russia's Latest Protests Mean for Putin," *The Atlantic*, March 27, 2017; "Navalny Jailed, More Than 1,100 Detained at Protests in Russia," Radio Free Europe/Radio Liberty, June 12, 2017.

24 Regina Smyth, "Russians Are Protesting! Part 7: This May Discredit Putin in the Next Election," *Washington Post*, March 31, 2017.

25 Ola Cichowlas, "Russia's Nationwide Anti-Corruption Protests in Videos," *Moscow Times*, March 27, 2017.

26 Smyth, 2017; Neil MacFarquhar, "Putin Wins Russia Election, and Broad Mandate for 4th Term," *New York Times*, March 18, 2018.

Ideological Context of Russian Regime Legitimacy

Key to the Kremlin's ability to maintain its legitimacy is its ability to situate the Putin regime within a long-standing, widely understood ideological tradition of authoritarian rule in Russia. This section briefly surveys the history of legitimating ideologies in Russia, placing the narratives of the current regime in context and demonstrating the reasons for the popular resonance that they enjoy.

Freedoms of speech and of the press have been relatively unknown for most of Russia's history. Both Tsarist and Communist Party rule sought to restrict what subjects could say or print with the aim of forestalling rebellion and dissent. Even though literacy was relatively rare among 19th-century Russia's largely rural peasant population during the reign of Tsar Nicholas I (1825–1855), the Russian government developed an extensive system of government censorship.[27] After a brief period of freedom following the 1917 February Revolution, the seizure of power by Vladimir Lenin and his followers enabled the introduction of extreme, qualitatively unprecedented forms of government censorship, even though the Soviet Union's various constitutions guaranteed freedom of conscience and expression.[28] Post-Soviet Russia initially repudiated Communist approaches to censorship and ideological control, but government control over information has been gradually reestablished under Putin.

Throughout each of these historical periods, the Russian (or Soviet) state has relied on particular ideologies to increase public support for the regime and its policies. The following section surveys the content of these ideologies, tracing how the themes employed continue to resonate with much of the Russian public today.

Historical Uses of Ideology in Russia

Tsarist Russia lacked a sophisticated ideological apparatus like the later Soviet Union, but it had an implicit official ideology that supported the existing social and political order. Under the reactionary rule of Tsar Nicholas I, these ideas were distilled into the formula *Pravoslavie*,

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[27] Richard Pipes, *Russia Under the Old Regime*, New York: Penguin Press, 1997, pp. 292–293.

[28] T. M. Goriaeva, *Politicheskaia tsenzura v SSSR. 1917–1991*, Moscow: ROSSPEN, 2009.

Samoderzhavie, *narodnost'* (commonly translated as "orthodoxy, autocracy, nationality" and dubbed the "Theory of Official Nationality" in Russia).[29] These factors foreshadow trends found in contemporary Russian political thought, including skepticism of liberal democracy, respect for the Orthodox Church, and justification for the concentration of political authority in a single individual.

Following the 1917 Bolshevik revolution, the new regime sought to remake the psychology of Soviet citizens and transform them into "New Soviet Men." One aspect of this involved the physical and symbolic destruction of the pillars of the old Tsarist ideology. The execution of Tsar Nicholas II and his family in 1918 foreclosed the possibility that the Romanov autocracy could be restored. Legal repression and propaganda campaigns sought to banish religion from Russian national life. Finally, Soviet ideologues introduced their own notion of nationality (*narodnost'*) to supplant the earlier concept of *narodnichestvo*. While *narodnichestvo* had emphasized the Tsarist social and religious order as the essence of Russianness, Soviet ideologues claimed that every ethnic group had a national distinctiveness that would persist throughout their evolution into a classless Communist society.[30]

The Soviet Communist Party had an immense advantage pressing its ideology upon the population, thanks to its monopoly on all public media and the limited education of the prerevolutionary population of the Russian empire. In Bolshevik nomenclature, "propaganda" was not pejorative. Soviet communists celebrated propaganda in the service of furthering revolutionary goals as a positive activity and condemned that of the regime's enemies. The way in which the Communist Party linked propaganda and ideology is exemplified by the fact that the Central Committee renamed its Agitation and Propaganda (Agitprop) Section as the "Ideological Section" and then reversed the decision.[31]

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[29] "Ofitsial'noi narodnosti teoriia," *Bol'shaia sovetskaia entsiklopediia*, 3rd ed., Moscow: Sovetskaia entsiklopediia, 1969–1978.

[30] S. I. Bruk, "Narodnost'," *Bol'shaia sovetskaia entsiklopediia*, 3rd ed., Moscow: Sovetskaia entsiklopediia, 1969–1978.

[31] V. F. Profatorov, "Propaganda," *Bol'shaia sovetskaia entsiklopediia*, 3rd ed., Moscow: Sovetskaia entsiklopediia, 1969–1978.

Under the rule of Stalin (1927–1953), Soviet efforts to impose official ideology on all areas of life reached an extreme level. In the mid-1930s, the state consolidated its control over art and literature and introduced *socialist realism*, an aesthetic framework intended to reshape citizens' consciousness by portraying Soviet reality "as it was becoming, not as it was."[32] Soon novels, poetry, sculpture, cinema, architecture, and even gastronomy reflected the official socialist-realist tropes. While these strictures were relaxed somewhat after Stalin's death in 1953, the Soviet government insisted on a milder form of socialist realism until the 1980s.[33]

Soviet Agitprop and socialist realism have left a considerable legacy on how Russians conceive of both the term "culture" and their own national culture. In its attempt to engineer the psyche of the "New Soviet Man," official propaganda insisted that citizens needed to be *kul'turnyi* ("cultured"). Good Communists were far more than unquestioning servants of the Party. They would be literate, self-motivated builders of a new socialist society. Ubiquitous propaganda posters reminded Soviets that "cultured" individuals would practice good manners and hygiene. Soviet propaganda also insisted that they should be sophisticated consumers of "cultural goods," including such items as cameras and musical instruments.[34]

After flirting with such innovative artistic forms as futurism and constructivism in the immediate aftermath of the revolution, the Soviet state under Stalin decided to reclaim Imperial Russia's cultural heritage for its own purposes. Official curricula stipulated that young Russians study Tolstoy and Pushkin as well as Marx and Lenin, and the wired speakers becoming ubiquitous in Russian cities exposed the newly urbanized inhabitants to a steady diet of classical Russian music that most of them had never heard in their native villages. Soviet citi-

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[32] Sheila Fitzpatrick, ed., *Everyday Stalinism: Ordinary Life in Extraordinary Times: Soviet Russia in the 1930s*, New York: Oxford University Press, 1999, p. 9.

[33] D. F. Markov and L. I. Timofeev, "Sotsialisticheskii realism," *Bol'shaia sovetskaia entsiklopediia,* 3rd ed., Moscow: Sovetskaia entsiklopediia, 1969–1978.

[34] Jukka Gronow, *Caviar with Champagne: Common Luxury and the Ideals of the Good Life in Stalin's Russia*, New York: Bloomsbury, 2003; Fitzpatrick, 1999.

zens consumed 19th-century Russian culture on a scale unimaginable during Tsarist times.[35] Today, Russian conceptions of their "traditional culture" (really their historical memory of the era before 1917) is filtered through the way in which it was taught and popularized by the Soviet state.

Following the ascent of Mikhail Gorbachev in 1985, the Soviet government began repudiating various components of the Soviet Union's official ideology. In the aftermath of the failed August 1991 coup, Boris Yeltsin banned the Communist Party itself, ending any prospect for the revival of Marxist-Leninist ideology.[36] Russia now needed to define itself and its place in the post–Cold War world.

In the 1990s, the government of President Yeltsin repudiated much of the Soviet legacy, especially its aggressive attempts to impose its ideology upon Russia and the rest of the globe. Unfortunately, the country's history of repressive, illiberal rule left post-Soviet Russia without a "usable past" upon which to build a post-Soviet identity as a liberal, European-style country. This lack of historical foundation, combined with the failure of Yeltsin's economic reforms, helped set the stage for the reversion to authoritarianism under Putin in the 2000s.

Contemporary Russian Official Ideology

Throughout the first decade of the 21st century, the Russian government refrained from establishing an official ideology for the country. Robust revenue from exported oil and gas fueled sustained growth in living standards that provided the Kremlin with popularity without the need for elaborate ideological justifications. Despite often engaging in deeply illiberal practices, the rhetoric of the Russian government

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[35] Vadim Volkov, "The Concept of Kul'turnost': Notes on the Stalinist Civilizing Process," in Sheila Fitzpatrick, ed., *Stalinism: New Directions*, New York: Routledge, 2000, pp. 210–230.

[36] Boris Yeltsin, then president of the Russian Federation, issued a decree on November 6, 1991, banning the Communist Party and nationalizing its property. Post-Soviet Russia has several Communist parties, most prominently Gennady Ziuganov's Communist Party of the Russian Federation, which was founded in 1993. Jeff Berliner, "Yeltsin Bans Communist Party," United Press International, November 6, 1991.

often sounded like that of a secular Western country, with statements of support for pluralism, tolerance, and human rights.

The want of an official ideology created a vacuum that many different constituencies in Russia aspired to fill. The dramatic revival of the Russian Orthodox Church as a force in Russian political and cultural life after 1991 offered one prominent alternative system of values. Growing collusion between the Orthodox Church and the state—exemplified by the transfer of valuable property nationalized during the Soviet period—made it clear that the Kremlin favored this religion over others.[37] Meanwhile, numerous schools of Russian nationalism emerged. These included the comparatively innocuous Rodina Party, the bizarre antics of Vladimir Zhironovsky, and the ominous "National Bolshevism" of Eduard Limonov and Aleksandr Dugin, which sought to combine elements of Soviet Communism and fascism.[38] Perhaps because of a belief that nationalism posed a potential threat to his own power, Putin maneuvered to marginalize these groups politically. Official proclamations of liberal, egalitarian policy positions that did not favor ethnic Russians provided a useful tool to neutralize the threat posed by nationalist political entities, such as the Rodina Party.[39]

After the return of Putin to the presidency in 2012 and especially after the 2014 seizure of Crimea, the Russian government began adopting more elements of nationalist rhetoric as official policy. While the Kremlin does not characterize them as such, these constitute the rudiments of an official ideology.

The update of the Russian National Security Strategy issued in December 2015 reflects the growing role of nationalist views in the country's security policy. The previous version of the document, pub-

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37 Mikhail Strokan, "Church-State Relations and Property Restitution in Modern Russia," Washington, D.C.: Center for Strategic and International Studies, August 18, 2016.

38 Markus Mathyl, "The National-Bolshevik Party and Arctogaia: Two Neo-Fascist Groupuscules in the Post-Soviet Political Space," *Patterns of Prejudice*, Vol. 36, No. 3, 2002.

39 Following Rodina's electoral successes in the mid-2000s, authorities sharply constrained the party's ability to campaign by raising legal challenges to its "inciting ethnic hatred" with its political rhetoric. Marlene Laruelle, "Russia as a 'Divided Nation,' from Compatriots to Crimea: A Contribution to the Discussion on Nationalism and Foreign Policy," *Problems of Post-Communism*, Vol. 62, No. 2, 2015.

lished in 2009, struck a balance between multicultural values and asserting a special role for Russian language and culture. It stated that

> The strategic aims of ensuring national security in the sphere of culture are:
> - broadening access of large sections of the population to the best examples of national and foreign culture and art by creating modern territorially distributed information banks;
> - creating conditions for the stimulation of creative self-realization within the population, by improving systems of cultural enlightenment, the organization of leisure activities and mass extracurricular artistic education.[40]

The 2015 Russian National Security Strategy set very different priorities:

> The strategic aims of ensuring national security in the sphere of culture are:
> - the preservation and augmentation of traditional Russian spiritual and moral values as the foundation of Russian society, and the education of children and young people in a civic spirit;
> - the preservation and development of the common Russian identity of the Russian Federation's peoples and of the country's unified cultural area.[41]

Russian officials identified cultural erosion as a significant threat to national security in the 2009 Russian Security Strategy, but their concerns were much more pronounced in the 2015 revision. The 2009 document declared that "the main threats to national security in the cultural sphere are the dominance of the production of mass culture oriented towards the spiritual needs of marginalized groups, and likewise unlawful infringements against cultural treasures." The current strategy finds much more to worry about:

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[40] Kremlin, *National Security Strategy Until 2020*, Moscow, May 12, 2009.

[41] Kremlin, *National Security Strategy of the Russian Federation*, Moscow, December 31, 2015b.

> Threats to national security in the sphere of culture are the erosion of traditional Russian spiritual and moral values and the weakening of the unity of the Russian Federation's multinational people by means of external cultural and information expansion (including the spread of poor-quality mass cultural products), propaganda of permissiveness and violence, and racial, ethnic, and religious intolerance, as well as the decline in the role of the Russian language in the world and in the quality of its teaching in Russia and abroad, attempts to falsify Russian and world history, and unlawful encroachments upon cultural objects.[42]

To secure Russia against internal and external threats, it recommends several measures, including the following:[43]

- recognition of the paramount role of culture in preserving and augmenting traditional Russian spiritual-moral and cultural values and strengthening the unity of the Russian Federation's multinational people;
- ensuring of the Russian Federation's cultural sovereignty by means of taking measures to protect Russian society against external expansion of ideologies and values and destructive information and psychological impacts, the implementation of control in the information sphere, and prevention of the spread of extremist products, propaganda of violence, and racial, religious, and interethnic intolerance.

"Traditional Russian moral and spiritual values" have emerged as a core concept in Russia's emerging ideology. According to the 2015 Russian National Security Strategy, "the historically evolved system of unified spiritual-moral and cultural-historical values, as well as the distinctive cultures of the Russian Federation's multinational people as an inalienable part of Russian culture," serve as "the foundation of the common Russian identity of the Russian Federation's peoples." Given Russia's history as both a feudal empire and a totalitarian socialist state, and unwillingness with which the country's minority groups were

[42] Kremlin, 2015b.

[43] Kremlin, 2009.

incorporated into Russia, the content of these "historically evolved" collective values is far from self-evident. The Security Strategy defines them as follows:

> Traditional Russian spiritual and moral values include the priority of the spiritual over the material, protection of human life and of human rights and freedoms, the family, creative labor, service to the homeland, the norms of morals and morality, humanism, charity, fairness, mutual assistance, collectivism, the historical unity of the peoples of Russia, and the continuity of our motherland's history.[44]

The tenuous connection of many of the values listed in the document with Russia's historical past demonstrates how newly constructed the notion of "traditional Russian values" is. Neither the Tsarist Theory of Official Nationality nor Soviet Marxism-Leninism offer much useful material for constructing a viable ideology for a capitalist, largely secular 21st-century Russia. The ahistorical nature and vagueness of "traditional Russian spiritual and moral values" are strengths as well as weaknesses for the Russian state. Drawing too direct a connection with the morally questionable values exemplified by Tsarist and Soviet Russia would elicit objections from various parts of Russian society. At the same time, Russian critics from across the political spectrum are correct when they note that the officially declared values lack substance.

Russian Domestic Media Environment

During the Soviet period, the Soviet Union's print and broadcast media were all subordinated to central state authority. After the collapse of the Soviet Union, much of the country's media holdings were privatized, and new privately owned media outlets emerged. During the 1990s and early 2000s, such oligarchs as Vladimir Gusinsky assembled media empires, and some, such as Boris Berezovsky and Mikhail Khodorkovsky, attempted to employ their media holdings for political ends. To neutralize these threats to his rule, Putin employed a mixed strategy of renationalization and expropriation to ensure that major

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[44] Kremlin, 2015b.

broadcast media would be in friendly hands. Today nearly the entirety of Russian television, radio, and print outlets are friendly to Putin's government, with a mere handful of exceptions.

Television

While cable and satellite services have cut significantly into its market share in recent years, broadcast television remains Russia's dominant medium. Most major Russian television broadcasters are owned either entirely or partially by the government. The All-Russia State Television and Radio Broadcasting Company, a state broadcaster, owns and operates Rossiia, while the Federal Agency for State Property Management (Rosimushchestvo) holds a majority stake in Pervyi Kanal (Channel One). In other cases, state ownership is more indirect: TNT and NTV are owned by Gazprom Media Holdings, which is in turn owned by Gazprombank, which is controlled by the Russian government thanks to its preferred shares. Gazprom Media Holdings holds a minority stake in the National Media Group, which owns Saint Petersburg–based network broadcaster Channel 5, but its majority owner Yurii Kovalchuk is a personal friend of Vladimir Putin.[45] *Dozhd'* ("Rain") is Russia's sole regime-critical television channel, but it reaches only very limited audiences.[46] Major Russian cable providers ceased to carry it in early 2014, and it cannot broadcast directly to viewers because the government did not include it in the list of stations that were allocated digital broadcast channels.[47] These formal and informal mechanisms of state control severely limit the opportunities to employ television to criticize Putin's government to its domestic audiences.

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[45] Steven Lee Myers, Jo Becker, and Jim Yardley, "Private Bank Fuels Fortunes of Putin's Inner Circle," *New York Times*, September 28, 2014.

[46] TV Dozhd' was forced to pioneer a subscription-based business model that reaches only a small fraction of its previous viewership. As of February 2016, the channel had only 70,000 paid subscribers, whereas millions of Russians had watched it every month under the old model. "Nazvano nyneshnee kolichestvo podpischeka telekanala 'Dozhd,'" sat-world.net, February 23, 2016.

[47] Maria Tsvetkova, "Russian TV Channel Sees Censorship After Being Taken Off Air," Reuters, January 19, 2014.

Radio

Although radio was a critical means of reaching Russian audiences in Soviet times, today it plays a much lesser role. Because the immense size of the Soviet Union left much of the country beyond the range of conventional radio transmissions, the Soviet government undertook the mass production of shortwave radio receivers during the postwar period. This created the possibility for Western governments to reach Soviet listeners in their own homes, which Radio Liberty and Radio Free Europe attempted to exploit for maximum effect. Today, very few Russians still listen to shortwave radio, and most of the Cold War–era Russian-language shortwave broadcasters have shut down.[48] Other forms of radio have also seen massive audience declines or shut down since 1991. Longwave AM radio was a ubiquitous feature of Soviet radios but was completely abandoned in Russia as of 2014.[49] Medium-wave AM radio has been abandoned by state Russian radio broadcasters as well, but it is still employed by religious and some regional stations. FM radio is dominated by music broadcasters and a few state-owned stations, such as Radio Rossiia and Radio Mayak. FM radio is also the home of Ekho Moskvy ("Echo of Moscow"), a news and talk station targeted at the intelligentsia. Known as a regime-critical outlet historically, Ekho Moskvy experienced a major shakeup in 2012 at the insistence of its owner, Gazprom Media Holdings.[50] As a consequence of comprehensive state domination, changes in listening patterns, and a demonstrated willingness to intervene against broadcasters who inconvenience the regime, radio is no longer an attractive means of reaching Russian audiences for outside actors.

[48] As of July 2017, Radio Free Europe/Radio Liberty's Russian-language service, Radio Svoboda, has ceased shortwave broadcasts and only broadcasts seven hours a day in the Moscow area via AM. "RFE/RL's Russian Service: Radio Svoboda," Radio Free Europe/Radio Liberty, May 1, 2017.

[49] "BBC: Rossiia postilas' s epokhoi dlinnovilnogo veshchaniia," *InoTV*, January 12, 2014.

[50] "Gazprom-Media to Change Director at Ekho Moskvy," Radio Free Europe/Radio Liberty, March 19, 2015.

Print Media

As in most countries, newspapers and magazines are losing readership in Russia as internet penetration grows. Many Soviet-era newspapers continue publication, such as *Izvestiia* and *Argumenty i Fakty,* but their readership has declined immensely from 1980s levels. Many newspapers are owned by the same state enterprises and individuals who control TV and radio stations. Russian law dictates that newspapers cannot be foreign-owned. National Media Group owns *Izvestiia*, and the Moscow municipal government owns *Argumenty i Fakty*. Even so, there is much more diversity in Russian newspaper publication than in television and radio. One of Russia's major newspapers, *Nezavisimaia Gazeta*, is owned by its editor Konstantin Remchukov. The newspaper *Novaia Gazeta*, founded in 1993, is owned as a collective and is one of the only publications in the country that undertakes investigative journalism. *Novaia Gazeta* has a respectable circulation for a Russian newspaper, but its investigative journalism has proved hazardous for its reporters, at least five of whom have been murdered.[51]

Internet

Compared with broadcast and print media, the internet offers a more attractive means for foreigners to reach Russian domestic audiences. As of 2017, internet users constituted about 70 percent of the Russian population.[52] Compared with its neighbor China, Russia has historically pursued a relatively non-interventionist policy toward internet regulation. However, there are signs that the Russian government is considering a policy of online censorship, in part to counteract perceived "information security" threats from foreign powers.

The Russian-language internet (dubbed "Runet" in Russian) includes both localized versions of international services, such as Google, as well as homegrown alternatives, such as the search pro-

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[51] The Committee to Protect Journalists counts five employees of *Novaya Gazeta* who have been murdered: Natalya Estemirova, Anastasiya Baburova, Anna Politkovskaya, Yuri Shchekochikhin, and Igor Domnikov. Committee to Protect Journalists, "Journalists Killed in Russia," undated.

[52] "Auditoriia Runeta perestala rasti," *Meduza*, January 26, 2017.

vider Yandex.[53] Such firms as Yandex, Mail.Ru, and the social network VKontakte compete handily with their larger international competitors in local markets. The most important characteristic of the Russian-language internet by Russian historical standards, however, is that it makes it possible for ordinary citizens to access an extraordinary amount of information about almost any subject, including much that would have been considered highly classified state secrets in Soviet times. Due to widespread piracy of everything from books to corporate financial documents, anonymous bloggers, and online discussion forums that act as clearinghouses for rumors, the internet has turned the deficit of information that oppressed Soviet citizens into an avalanche. As is true of the internet in other countries, the quality of this information often varies dramatically, and in many cases, it serves to confuse more than enlighten.

Once the importance of the internet to Russian domestic discourse became apparent, the Russian government began subjecting key firms to similar mechanisms of formal and informal control as more traditional media. These steps included the acquisition by oligarch and Putin ally Alisher Usmanov of a controlling stake in VKontakte, after which its founder Pavel Durov was pushed out of the company. Durov fled Russia declaring that he had "no intention of going back."[54] Today, the Russian tech sector is concentrated into a few large firms whose management can be trusted not to defy the Kremlin, namely Yandex and Mail.Ru (which now owns the entirety of VKontakte in addition to the online auction site Molotok.ru).

Until the early 2010s the Russian government took a hands-off approach to internet regulation, not merely abstaining from censorship but actually allowing some forms of cybercrime to flourish. Russian law did not forbid possession of child pornography, abetting the trafficking of this content, and the Russian government turned a blind eye

[53] In contrast, the Chinese "Great Firewall" has blocked YouTube, Facebook, and Twitter since 2009; Jonathan Sullivan, "China's Weibo: Is Faster Different?" *New Media and Society*, Vol. 16, No. 1, February 7, 2013.

[54] Danny Hakim, "Once Celebrated in Russia, the Programmer Pavel Durov Chooses Exile," *New York Times*, December 2, 2014.

to cybercriminals who profited at the expense of foreigners. This permissive attitude attracted the ire of both domestic and foreign critics, who saw cyberspace as a cesspool of lawlessness and immorality. Curiously, this policy persisted despite the existence from the 1990s of an Russian Federal Security Service program, the "System for Operative Investigative Activities" (SORM in Russian), which required that all internet service providers send a duplicate of all their network traffic to the FSB at their own expense.[55] The Russian government only cracked down on illicit internet traffic once it became motivated to do so to suppress dissent.

During the 2011–2012 "Winter of Discontent," thousands of protesters used the internet to mobilize and coordinate action against the Kremlin. It was no coincidence that a new law on regulating the internet went into effect in November 2012. This law established a "blacklist" of websites that all Russian internet service providers were obliged to shut down or block. Ostensibly intended to protect children from such hazards as pornography, critics (including Russian internet companies) immediately protested that this was really an attempt to impose censorship. In 2013, this was followed by an "Anti-LGBT Propaganda Law," which sought to "protect minors from materials promoting nontraditional sexual relations." In February 2014, a "Law on Pre-Trial Blocking of Websites" went into effect dictating that sites that "incite extremism or riots" could be blocked without warning or a clear mechanism for unblocking them. During the annexation of Crimea, this law was used to block a number of opposition websites. Another law passed in 2014 demanded that all bloggers with a readership over 3,000 register with the government and obey laws applicable to media outlets.[56] Finally, a law demanding that all Russian media outlets reduce their foreign ownership to 20 percent or less by the end of 2016 was

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[55] Andrei Soldatov and Irina Borogan, "Russia's Surveillance State," *World Policy Journal*, Vol. XXX, No. 3, Fall 2013.

[56] Jaclyn A. Kerr, "Chill of Victory: Russia Targets Bloggers Amid Celebrations," *Independent Journalism 101* [previously *Journalism for Change*], May 13, 2014.

put into effect, with a marked impact on regime-critical newspapers and websites.[57]

These laws seriously curtailed the activity of Russian websites critical of Putin's government. The Russian online news outlets Gazeta.ru and Lenta.ru became markedly less independent, and the opposition websites Grani.ru, EJ.ru, and Kasparov.ru, as well as Alexei Navalny's LiveJournal blog, were blocked for their ostensible "extremism."[58] There are indications that government leaders will impose much more extreme controls over the internet if they deem it necessary. Some Russian officials have floated the idea of creating a "kill switch" that could isolate Russian citizens from the global internet at a moment's notice. Russia is also receiving Chinese assistance establishing the infrastructure needed to more comprehensively censor its domestic internet.[59] Moreover, perhaps driven by perceptions of what the Russian-language internet was like before greater controls were imposed, Putin's policies in this arena enjoy popular support—a majority of Russians agree that internet censorship is necessary.[60]

Policy Measures to Diminish Domestic and Foreign Support for the Russian Regime

The Kremlin enjoys a number of advantages, including close control of the domestic media environment and security services, which make any effort to substantially diminish its domestic support difficult. Nonetheless, its highly corrupt, semi-authoritarian form of governance also brings with it several weaknesses that could be exploited to challenge its legitimacy or increase Russian dissatisfaction with its government.

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[57] J. A. Kerr, *Authoritarian Management of (Cyber-) Society: Internet Regulation and New Political Protest Movements*, dissertation, Georgetown University, 2016, pp. 230–231.

[58] Kerr, 2016, p. 236.

[59] Reilly, 2016.

[60] Adam Taylor, "60 Percent of Russians Think Internet Censorship Is Necessary, Poll Finds," *Washington Post*, November 18, 2016b.

We will discuss four possible measures to exploit these vulnerabilities below. The first three are directed at the regime's domestic support and the fourth at its international.

Measure 1: Expose the Corruption in the Russian Electoral System

Western actors could help to diminish the domestic legitimacy of the Putin regime by conducting an information campaign to expose the corruption in Russian elections. This could involve the centralized collection and aggregation of reports of fraud or ballot-stuffing; statistical analyses of voting totals to identify likely falsified numbers and projections of what alternative, or "true," election results would have been without fraud; and short video or documentary productions emphasizing the scale of the irregularities, including already-available footage showing incidents of ballot-stuffing. Such content, produced in Russian, could be widely distributed through the Russian-language internet and social media. Funding might come not from the U.S. government but from other actors to which Russian citizens would have less reflexively adversarial reactions, or where the original source was less clear. This could be supplemented in other outlets with leaked correspondence from local Russian election officials planning or coordinating the fraud, which, given the scale of fraud typically reported, seems likely to be obtainable. It is worth noting that this is the strategy that Russian intelligence agencies have chosen to pursue to distract and destabilize Western countries.[61]

Efforts to expose the failures and the corruption in the Vladimir Putin regime were made during the 2018 presidential elections, but this proved a difficult target. Putin remained broadly popular in Russia according to opinion polling, and serious challengers to his election did not materialize. Other levels of government in Russia are far less popular, however. In part, this seems to reflect a political strategy against the part of the Kremlin to blame failings of the government on other actors and insulate Putin. But it also reflects the fact that while most citizens do not directly interact with the presidency, they have much more direct contact with and knowledge of more-local leaders. A

[61] Office of the Director of National Intelligence, 2017.

Western information strategy designed to expose fraud, lack of competition, and other shortcomings of locally based elections to the Duma, next scheduled for 2021, and regional governors and local parliaments, staggered to include some elections in different regions each year, could be more effective and have a cumulative effect on overall perceptions of the legitimacy of the Putin system. Regional governors could be a particularly effective target, given the haphazard manner in which they have oscillated between being locally elected and appointed by the national government over the past decade, enhancing uncertainty over precisely what the legitimate rules for selecting them should be.[62]

Potential Benefits

Diminishing the belief of Russians in the legitimacy of the means by which their leaders acquire power has the potential to increase discontent with the regime, leading to protests, lack of cooperation with the government, greater emigration of skilled workers and academics, and other events that could distract or weaken the regime. In an extreme case, such a strategy could theoretically lead to regime change, although such an event is unlikely, or at the least unlikely to be attributable in large part to Western efforts.

Risks

The risks of such an information campaign are that complaints about electoral irregularities could increasingly be dismissed by Russian-domestic audiences as foreign-sponsored propaganda. Local Russian activists that generate much of the reporting that this campaign would collate could be unfairly accused of being foreign agents and subject to reprisals. A concerted effort to undermine confidence in the Russian electoral system could also lead Russia to further increase its own already-extensive efforts in this regard to target Western democracies. In the event that Western efforts were successful in creating large-scale disruptions and lack of confidence, the Kremlin could respond by turning inward to tamp down discontent, but it could also respond by

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62 Andrew Roth, "Russia: New Law Allows Governors to Be Appointed, Undoing Reform," *New York Times*, April 2, 2013; Vladimir Ryzhkov, "United Russia Wins Elections but Not Respect," *Moscow Times*, September 22, 2014.

lashing out and pursuing a diversionary conflict abroad that might run counter to Western interests.

Likelihood of Success

Given that most media sources are controlled by the state, reaching a large Russian audience with such a campaign would be difficult but not impossible. For one thing, a sophisticated internet-based campaign would be difficult for Russia to block completely. For another, the success of Alexei Navalny's YouTube-hosted documentary accusing Prime Minister Dmitri Medvedev of corruption demonstrates that greater effects are possible,[63] although any U.S. campaign is likely to reach a limited audience that probably already believes the information being presented. Even if not distributed as broadly, such a Western-based campaign could help to galvanize already-skeptical urban and better-educated audiences to take greater action. It also remains uncertain as to whether electoral fraud can be a mobilizing issue in Russia. The country lacks any real tradition of competitive, fair elections, so violations of electoral rules and norms may generate less outrage than other issues.

Measure 2: Diminish the Perception That the Regime Is Pursuing the Public Interest

Instead of or in addition to focusing on how Russian officials come to power, Western efforts could focus on the shortcomings of what those officials do once in office. While issues such as the murder and repression of domestic regime critics, the true extent of Russian involvement in the conflict in Ukraine, and the economic costs imposed on the Russian people by Putin's confrontational approach to the West each highlight aspects of Russian policy that negatively affect its citizens, they may have less resonance than expected in Russian society. Official ideologies and narratives of the regime that focus on defending the Russian people against a decadent, immoral West are, in part, constructed to insulate the regime from concerns over these issues. Western efforts to emphasize the costs of these policies may therefore be

[63] Ioffe, 2017.

less effective in reducing confidence in the regime, and may even be dismissed out of hand by large portions of the Russian public.

However, one area where the regime seems particularly exposed to charges that it is failing to serve the Russian people is corruption. The Russian regime under President Putin is corrupt on a massive scale.[64] By leveraging influence over regulators and the justice system, not to mention state control of such key economic assets as fossil fuel exploitation, oligarchs and government officials have been able to acquire huge fortunes using illegal or quasi-legal means, all in a manner dependent on continued support for President Putin.[65] It is further likely that President Putin is personally implicated in such activities and has himself become enormously wealthy during his time in office.[66] Moreover, while most Russians are not personally exposed to corrupt dealings involving oligarchs, they are exposed to petty, local corruption with greater frequency, which can give concern over corruption accusations greater resonance. Corruption also provides an alternative explanation to the public for declining Russian living standards, and one that is far more difficult for the regime to deflect than the effects of Western sanctions. Russian ideologies and narratives do not effectively insulate politicians from public discontent regarding corruption. Indeed, Russian ideologies emphasizing threats to the nation would seem to call for a highly-effective government to safeguard the Russian people in challenging times. By emphasizing that the current regime dramatically fails to meet this standard, corruption accusations can resonate with audiences that might otherwise be supportive of regime goals.

The anti-corruption protests in March and June of 2017 drew tens of thousands of people throughout the country, despite in most cases a lack of official sanction to hold the gatherings, emphasizing the poten-

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[64] A 2009 estimate placed the cost of bribes paid annually in Russia at roughly one-third of GDP, $318 billion. See Fred Weir, "Russia Corruption Costs $318 Billion—One-Third of GDP," *Christian Science Monitor*, November 23, 2009.

[65] Karen Dawisha, *Putin's Kleptocracy: Who Owns Russia?* New York: Simon and Schuster, 2014, pp. 313–325; Masha Gessen, "The Myth of the Russian Oligarchs," *New York Times*, December 10, 2014.

[66] Dawisha, 2014, pp. 1–4, 10–11.

tial salience of corruption as a political issue.[67] These protests were large in scale for Russia, particularly given that they did not have official permission to proceed, meaning protestors risked criminal charges by participating.[68] Navalny, the organizer of the protests, timed the March protests to follow his release of a documentary detailing corruption allegations against Medvedev.[69] In April 2017, Navalny was violently attacked outside his offices, sustaining serious injuries to his right eye.[70] He declared his candidacy for president in the 2018 election but was barred from running due to a previous criminal conviction on charges widely seen as trumped up.[71] Nonetheless, he has continued to lead anti-corruption efforts within Russia, despite regime opposition.[72]

It seems highly likely that Western intelligence agencies either already have or could acquire clear evidence of corruption by a range of Russian officials, given its apparently widespread nature and large scale. If damaging information could be acquired, it could then of course be released officially, with full corroborating details and authentication, or leaked through an intermediary, mirroring the Russian intelligence agencies' use of WikiLeaks.[73] Distribution would need to occur primarily through the internet, since official media coverage of such accusations would be unlikely. However, Navalny's 50-minute Medvedev documentary has received surprisingly wide distribution in

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[67] Ioffe, 2017; "Navalny Jailed, More Than 1,100 Detained at Protests in Russia," 2017.

[68] Ioffe, 2017.

[69] Oliphant, 2017.

[70] Andrew E. Kramer, "Kremlin Critic Aleksei Navalny Says Attack Left Him Mostly Blind in an Eye." *New York Times*, May 2, 2017.

[71] "U.S. Announces New Tank and Artillery Deployment in Europe," BBC, June 23, 2015.

[72] "Russia Moves to Block Navalny's Latest Investigation," Associated Press via *Business Insider*, February 10, 2018.

[73] Office of the Director of National Intelligence, 2017. To clarify, it would seem highly inadvisable for Western intelligence agencies to attempt to cooperate directly with anti-corruption groups inside Russia, such as Navalny's Anti-Corruption Foundation. Such cooperation would undermine the effectiveness of those groups within Russia, as well as put their members at greater risk of imprisonment or death. Instead, Russian-language outlets outside Russia would need to be identified or created.

this manner, garnering over 20 million views on YouTube between March and June 2017 alone.[74] While accusations against high-ranking officials, including Putin himself, would likely receive the greatest attention, targeted accusations against local officials, such as governors, could have notable effects, particularly if combined with efforts to show that their elections were fraudulently won.

Potential Benefits

An information campaign exposing further evidence of widespread corruption throughout the current regime in Russia has the potential to further challenge the legitimacy of the state. Public concern about corruption issues appears to be a more widespread source of discontent in Russia than other issues, such as regime brutality or misbehavior abroad. Evidence of corruption therefore has the potential to encourage larger-scale protests, at both the local and national levels depending on the officials targeted.

Furthermore, corruption evidence against high-ranking officials could have additional benefits in splitting elite support for the regime. Oligarchs and other high-ranking officials appear to have struck a rough bargain with Putin: They will stay entirely out of politics other than supporting Putin, and in return they will be rich, protected, and out of the public eye. If the Kremlin attempts to relieve public pressure over corruption by prosecuting some oligarchs or government officials, it could cause others to reconsider their support for the regime for fear they may be next and fragment elite groups, which to this point have largely closed ranks despite such difficulties as Western sanctions. Although unlikely to bring about the collapse of the regime, elite infighting could further preoccupy the Kremlin and distract it from other pursuits.

Risks

The risks of this strategy are also substantial. First, greater pressure on high-ranking officials in Russia over corruption could prompt the government to take an even harder line against domestic anti-corruption

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[74] "Navalny Video Accusing Medvedev of Corruption Posted on Government Websites," Radio Free Europe/Radio Liberty, June 11, 2017.

groups, endangering their operation and safety. This risk would be elevated even if those groups continued to operate completely independently of Western intelligence leaks of evidence of corruption, and would of course be further heightened if coordination were suspected or identified. Second, such an information campaign would likely prompt a Russian response in kind, escalating Russian hacking and leaking campaigns against Western politicians, with unpredictable political consequences. Third, Russia may not confine its response to one that is "in kind" and instead decide to escalate its confrontation with the West in another domain, either to try to deter Western leaking of Russian corruption or to distract domestic Russian audiences with a conflict abroad.

Likelihood of Success

Widespread, large-scale corruption appears to be a potent political issue in Russia, one with the potential to move a substantial part of the Russian public to action and increase perceptions that the current regime is illegitimate and not acting in the interests of its people. Depending on the type of information released, the potential to affect Russian politics and stability seems substantial. To be sure, the fact that such information would not be covered by official media channels limits its reach and the speed of its distribution. However, sufficiently compelling information is likely to spread virally through the Russian-language internet, given the large pre-existing concerns and disinclination to believe official accounts of this issue. Whether political volatility and protests would lead to a more extended Russia, less able or inclined to threaten Western interests abroad, or a Russia more inclined to lash out in retaliation or to distract is difficult to assess, making this a high-risk strategy.

Measure 3: Encourage Protests and Other Nonviolent Resistance

Just as information campaigns to reduce public confidence in how Russian officials acquire and exercise power can diminish the legitimacy of the regime over the long term even if short-term public expressions of discontent remain limited in the face of repressive measures, so too can expressions of public discontent, regardless of their motivation, chal-

lenge regime legitimacy in their own right. Such actions as large-scale protests, strikes, and electoral boycotts represent an implicit challenge to the regime and demonstrate to all citizens that the regime's legitimacy is not universally upheld. Against a backdrop of falling living standards, such actions can be tremendously dangerous for the stability of the regime.

There are signs that sections of the Russian public may be increasingly supportive of such measures. Anti-corruption protests have been surprisingly large in scale, though still smaller than protests likely to threaten the survival of the regime. By contrast, the protests throughout East Germany in 1989 that led to the fall of the Berlin Wall involved more than 1 million people in Berlin alone.[75] In Russia, the attempted coup in August 1991 that led to the collapse of the Soviet Union was accompanied by large-scale protests throughout the country, including at least tens of thousands in Moscow.[76] Voter turnout in the 2016 Duma elections, even according to official figures that may have been tampered with, was the lowest in Russia's post-Communist history.[77] Strikes prompted by unpaid wages and economic distress became more prevalent following the post-2014 economic downturn and occurred throughout the country even in areas that politically are strong supporters of President Putin and United Russia.[78]

A Western strategy to increase such actions would be difficult to execute. Russia has highly effective domestic security services, and any direct coordination between local groups and Western governments, particularly in light of the 2015 law effectively banning most Western nongovernmental organizations, could lead to prosecutions

[75] Hanna King, "East Germans Protest for Democracy (The Peaceful Revolution), 1988–90," Global Nonviolent Action Database, October 10, 2010.

[76] Zein Nakhoda, "Defense of Soviet State Against Coup, 1991," Global Nonviolent Action Database, May 14, 2011.

[77] Shaun Walker, "Russia Stays Loyal to Kremlin in Election with Record Low Turnout," *The Guardian*, September 19, 2016.

[78] Andrew E. Kramer, "Unpaid Russian Workers Unite in Protest Against Putin." *New York Times*, April 21, 2015.

or worse.[79] This would appear to restrict overt Western efforts to an externally-based information campaign, one that would likely need to combine the collation or release of damaging information about the regime along the lines discussed in the previous two policy options with encouragement for certain types of direct action. Some actions are likely to be more dangerous for participants than others, with public protests or marches more likely to be met with violence by the state than strikes, absenteeism, or vote boycotts. While direct Western calls for specific actions are unlikely to resonate in a Russia where even opponents of the regime may be skeptical of Western intentions and involvement, information campaigns could still be targeted to make certain types of actions more likely. For example, a focus on allegations of vote rigging could reduce voter turnout, and information regarding local corruption and mismanagement could increase strikes or protests in specific areas. The precise information campaign conducted could be designed to maximize the chances that Russian actors would decide to take actions that are assessed to be most potentially damaging or distracting to the regime at different points in time.

Potential Benefits

Similar to the other information campaign options discussed, the potential benefits of such an approach would be to distract or destabilize the Russian regime and reduce the likelihood that it would pursue aggressive actions abroad. Russia already experiences limited versions of these actions, and Western efforts could work in tandem with ongoing economic and political trends within Russia to expand their scope and frequency.

Risks

The risks of this approach are also similar to the policies previously discussed, but they are more pronounced. Western efforts to directly instigate anti-regime protests are precisely the sorts of steps that the West was accused of during the 2013–2014 Euromaidan protests in Ukraine that led to a dramatic Russian reaction. Coordination with domestic

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[79] Thomas Grove, "Russia's Putin Signs New Law Against 'Undesirable' NGOs," *Wall Street Journal*, May 25, 2015.

Russian groups over such actions, even if loose and tacit, would likely lead to prison (at best) for those involved. It might also undermine the domestic legitimacy of these movements. The Kremlin also would likely consider such activities to be a direct attempt to undermine and change the regime and would respond accordingly, which could include escalations of its own information campaigns against Western governments or escalations of disputes in other domains, including cyber or even potentially kinetic actions against Western interests. Depending on the scale of the protests or strikes, they would have the potential to distract Russia in the short term. Assuming the regime survived, however, it would be strongly motivated to try to reestablish deterrence and discourage the West from taking such actions again in the future.

Likelihood of Success

As already noted, it would be difficult for Western governments to directly increase the incidence or intensity of anti-regime activities in Russia without coordinating with domestic groups, and that in itself is a dangerous and difficult proposition. It is plausible that an external information campaign could increase these activities if the information were sufficiently compelling, targeted, and well-presented, though it would likely be only one contributing factor among many in any success. Even if such a campaign were successful in increasing anti-regime activity, however, it could plausibly extend Russia while still harming Western interests because of the strong potential for Russian retaliation.

Measure 4: Undermine Russia's Standing Internationally

Russian prestige has become an increasingly important part of the regime's attempts to legitimize its rule, built on narratives that Russia is reasserting its rightful place as a great power in the world. It is worth noting that while Russian actions over the past several years, notably in Syria, have clearly established Russia as an increasingly assertive player in the world, popular opinion in most key countries toward Russia,

and President Putin specifically, remains quite negative.[80] Russia lost its place in the (formerly) G-8 meetings after the invasion of Crimea; it has been the subject of multiple sets of sanctions by the United States and the EU; and it received widespread condemnation in Europe following the shooting down of Malaysian Airlines Flight MH17 in 2014.[81]

Nonetheless, Russia's international standing could be weakened further. Russia could be excluded from additional international forums, such as the G-20; face wider sanctions and travel bans; and lose the right to host prestigious international events. Domestic threats to Russia's legitimacy, such as information campaigns that reveal corruption or electoral manipulation or efforts to increase protests, could also serve to weaken Russia's international prestige by highlighting the regime's domestic shortcomings. Western governments could try to make clear to Russia that its status would be restored and punitive measures lifted if it were to cease targeting Western political institutions. Separate measures that have been put in place in reaction to Russia's interference in Ukraine would remain.

Potential Benefits

The principal benefit of such an effort would be to diminish Russian standing (and thus influence) abroad while contributing domestically to a sense of isolation and international opprobrium. This sense would undercut regime claims of restoring Russia to its former glory, which the regime has used to justify why Russians should accept recent poor economic conditions without complaint.

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[80] In recent cross-national surveys conducted by Pew, only 27 percent of respondents had confidence in Vladimir Putin to "do the right thing regarding world affairs," compared with 42 percent for Angela Merkel and ratings greater than 50 percent for President Obama in 15 of 16 countries. Richard Wilke, Jacob Poushter, and Hani Zainulbhai, "2. Obama's International Image Remains Strong in Europe and Asia," Pew Research Center, June 29, 2016; Richard Wilke, Bruce Stokes, Jacob Poushter, and Janell Fetterolf, "3. Less Confidence in Trump Compared with Merkel and Other World Leaders," Pew Research Center, June 26, 2017.

[81] Jim Acosta, "U.S., Other Powers Kick Russia Out of G8," CNN, March 24, 2014; Gabriela Baczynska, "EU Extends Crimea Sanctions, Same Seen for Curbs on Russia," Reuters, June 19, 2017; Tony van der Togt, "The Impact of MH17 on Dutch-Russian Relations," *Clingendael*, October 26, 2016.

Risks

The risk, as with the preceding three measures, is that domestic repression in Russia and Russian efforts at disinformation and destabilization abroad might be increased to compensate for the greater domestic challenges the regime might face.

Likelihood of Success

Western efforts to damage Russia's international prestige can be effective if broadly implemented. Further sanctions, the removal of Russia from non-UN international forums, and boycotting of international events are largely within the power of Western states to unilaterally implement and would damage Russian prestige. The extent to which these steps would damage Russian domestic stability is more uncertain, however. Russia has managed to turn Western sanctions over Crimea to its domestic political benefit, at least in the short term, as evidence of a Western plot to resist Russia's return to greatness. Nonetheless, Russian leaders benefit from demonstrations of their international status, and the loss of international sporting events or access to key forums is likely to deepen concerns within Russia that the current regime might not be effectively pursuing policies that are returning Russia to glory.

Recommendations

Affecting the political stability of a country by an external actor is difficult, and Russia is a more difficult country to influence than most (Table 5.1). Long-standing Russian concern about the vulnerability of its people to so-called information threats and the Russian government's demonstrated propensity to intervene in public discourse when it feels threatened have left the country resistant to foreign influence operations. Traditional media in Russia are, with rare exceptions, under secure pro-regime control, leaving the internet as the primary means of reaching the population directly. Moreover, Russian regime narratives predispose much of the population to be skeptical of anti-regime messages coming from abroad.

Table 5.1
Findings for Ideological Measures

Measure	Benefits	Costs and Risks	Likelihood of Success[a]
Expose corruption in the Russian electoral system	Medium	High	Low
Diminish the perception that the regime is pursuing the public interest	Medium	High	Medium
Encourage domestic protests and other nonviolent resistance	Medium	High	Low
Undermine Russia's standing internationally	Medium	Medium	Medium

[a] The likelihood of success of these policies depends on the scale of the effect they are aiming to achieve. All policies would be expected to have a low probability of leading to widespread disruptions or regime change in Russia. However, if the bar is set lower, at creating any measurable increase in domestic dissatisfaction with the regime, then the prospects for success would improve substantially. The coding in this table reflects aims in between these two extremes: widespread or notable changes in Russian regime legitimacy or stability, albeit still well short of regime change. That said, the value of this coding comes from the relative differences it shows among the different policy measure options rather than from the absolute levels indicated.

Despite these difficulties, limited effects on Russian stability could be achieved by a Western information campaign that helped to undermine key aspects of the regime's claim to legitimacy and worked in tandem with preexisting regime vulnerabilities on such issues as corruption. However, such a strategy would be enormously risky. Western involvement in Russian politics in this manner could give the regime both cover and an incentive to institute a violent crackdown on domestic anti-regime groups and activists. Even if the strategy were successful in undermining domestic and international support for the regime, Putin might well not react by turning inward but instead decide to lash out in a diversionary conflict and try to reestablish deterrence of Western states from making any further such efforts. This approach could effectively signal a second Cold War between Russia and the West, from which de-escalation would be difficult.

Nevertheless, recent Russian efforts to subvert Western democracies provide a powerful rationale for some sort of counter campaign as

payback, future deterrence, and a basis for some mutual stand-down in such activities. Since relations between Russia and the West plummeted after the 2014 invasion of Crimea, Russia has undertaken a series of highly aggressive information and influence operations against Western democracies. The effectiveness of these operations has varied substantially, and most steps that states can take to limit their vulnerability to Russia's actions involve domestic policies and political choices that are outside the scope of this report. Nonetheless, Western nations have a clear incentive to try to deter Russia from repeating or even expanding such efforts in the future. Economic sanctions are one such path, along which the U.S. Congress has embarked. Another approach is to establish deterrence, or even achieve a mutual stand-down in such activities by developing a capacity to respond in kind and demonstrating the willingness to employ it.

CHAPTER SIX

Air and Space Measures

Air and space have long been attractive domains for cost-imposing strategies against Russia. They are two of the most technologically demanding and expensive places to operate. The United States excels in the development of sophisticated technologies, and its economy has been the world's largest and most dynamic since the mid-20th century. As a result, the United States enjoyed significant advantages in air and space systems during its military competition with the Soviet Union, and it continues to benefit from these advantages vis-à-vis Russia today.

The end of World War II left the United States as the sole nuclear power and with a large bomber force that could range targets across Eastern Europe and much of Russia. U.S. developers capitalized on these advantages in heavy-lift, long-range aircraft technology in the first decade of the Cold War, developing nuclear-capable intercontinental bombers, such as the B-36 Peacemaker and B-52 Stratofortress that could reach any target on the Eurasian continent.[1]

Conversely, even after the Soviet Union exploded its own atomic device in 1949 and began feverishly building a nuclear arsenal, it lacked bombers able to reach the continental United States and focused instead on developing ICBMs to offset this strategic disadvantage. Missile development led to space exploration, and Moscow enjoyed some notable achievements early in that competition. But the moon race established the United States as the undisputed champion in space technology and demonstrated the enormous economic potential of a free enterprise

[1] Walton S. Moody, *Building a Strategic Air Force*, Washington D.C.: Air Force History and Museums Program, 1996, pp. 235–281.

system galvanized in pursuit of an inspirational goal.[2] In the closing decades of the Cold War, the United States developed ever more sophisticated air and space systems, and Moscow felt increasingly vulnerable. Some analysts argue that President Reagan's SDI, or "Star Wars," played an important role in ending the Cold War by convincing Soviet military leaders they could no longer compete with U.S. technological advancement, although this argument is far from universally accepted.[3]

Whatever the case, post–Cold War era advances in information technology enabled U.S. forces to network air and space systems across domains in ways that made U.S. conventional warfighting capabilities the most lethal in the world.[4] Soviet and Russian air and space systems were never able to compete with their U.S. counterparts directly, so Russian developers focused on ballistic missiles, ground-based air defense systems, and counterspace weapons to balance against the U.S. threat. While these weapons are sophisticated in their own right, they reveal how anxious Moscow has always been about Russia's vulnerability to U.S. air and space superiority.

This chapter examines the extent to which the United States can exploit Russia's anxieties about its vulnerability in the air and space domains. We consider whether reposturing certain assets, such as bombers, fighters, tactical nuclear weapons, and missile defenses can contribute to cost-imposing strategies. Next, we evaluate the viability of prompting Moscow to increase its spending by making greater U.S.

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[2] For a definitive history that illuminates the centrality of the space race in the Cold War, see Walter A. McDougal, *The Heavens and the Earth: A Political History of the Space Age*, Baltimore: Johns Hopkins University Press, 1985.

[3] For arguments consistent with this line of thought, see Martin E. Malia, *The Soviet Tragedy: A History of Socialism in Russia, 1917–1991*, New York: Free Press, 1994; Mira Duric, *The Strategic Defence Initiative: US Policy and the Soviet Union*, Burlington, Vt.: Ashgate, 2003; Thomas C. Reed, *At the Abyss: An Insider's History of the Cold War*, 1st ed., New York: Ballantine Books, 2004; Robert Service, *The End of the Cold War: 1985–1991*, New York: PublicAffairs, 2015. For counterarguments, see Frances Fitzgerald, *Way Out There in the Blue: Reagan, Star Wars and the End of the Cold War*, New York: Simon & Shuster, 2001; Pavel Podvig, "Did Star Wars Help End the Cold War? Soviet Response to the SDI Program," Russian Nuclear Forces Project, working paper, March 2013.

[4] For a detailed history of these developments, see Keith L. Shimko, *The Iraq Wars and America's Military Revolution*, Cambridge, UK: Cambridge University Press, 2010.

investments in ballistic missile defense (BMD), low-observable aircraft, air-launched cruise missiles, remotely piloted aircraft, high-speed antiradiation missiles (HARMs), and high numbers of small satellites (SmallSats) to achieve greater resilience in space. We also look at the potential effects of developing more-exotic weapons, such as the assortment of ground-, sea-, and air-delivered hypersonic and hypervelocity weapons being considered for the conventional prompt global strike (CPGS) mission.[5] Finally, we explore options for modernizing the air and missile components of the nuclear triad to determine whether those actions might prompt Moscow to increase spending in ways favorable to U.S. interests. In each case, we describe what steps could be taken, how they might affect Russian anxieties, and the potential benefits and risks of Russia's responses.

Measure 1: Change Air and Space Force Posture and Operations

While many cost-imposing strategies would require the United States itself to make significant investments in new capabilities, it might be possible to achieve considerable effect simply by reposturing existing assets in ways that Moscow considers threatening. For instance, the United States could deploy bomber or fighter aircraft to within easy striking range of key Russian strategic targets—such as nuclear command-and-control centers, important military installations, or government centers—to fuel Russian fears of U.S. air attack. U.S. leaders could deploy bombers to bases in Europe and Asia that are closer to Russian targets than they would be if based in the continental United States but far enough away to be out of range of most of Russia's theater ballistic

[5] CPGS is an R&D effort to develop conventional weapons capable of striking targets anywhere on Earth in as little as an hour. Concepts that have been considered for this mission include arming ICBMs or SLBMs with conventional warheads and developing air-delivered or submarine-launched hypersonic (Mach 5+) cruise missiles and several types of hypersonic boost-glide vehicles and hypervelocity (Mach 8+) test vehicles. See Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, Washington, D.C.: Congressional Research Service, R41464, July 7, 2017d.

and ground-based cruise missiles. Possible locations in Europe include bases in the United Kingdom or along the west coast of the European continent. Fewer choices are available in Asia, but Anderson Air Force Base, Guam, would be a suitable location, and other Pacific islands offer possibilities worth exploring.

U.S. bombers and fighters are dual-capable weapon systems—that is, they can deliver both nuclear and conventional ordnance—but fighters have historically been deployed principally in the conventional mode. Assuming U.S. leaders would continue that norm, strike fighters would need to be positioned closer to their targets than bombers are to achieve higher sortie rates that would compensate for their smaller payloads. There are numerous air bases and airports in Eastern Europe that could host fighter deployments. In Northeast Asia, the United States already operates fighters out of large bases in South Korea, southern Japan, and Okinawa, as well as Misawa Air Base in northern Japan. Misawa and other northern airfields could be augmented with additional strike assets, and some of the strikers now in the south could be shifted north to intensify the threat against targets in the Russian Far East.

The United States could also heighten Russia's anxiety about bomber and fighter deployments by deploying additional tactical nuclear weapons to locations in Europe and Asia. In the mid-1970s, the United States had more than 7,000 operational nonstrategic nuclear warheads at U.S. bases in those theaters. As U.S. and allied leaders became more confident that they could deter Soviet aggression with fewer—but more-modern—weapon systems, they began reducing these stockpiles in the late 1970s; when the Cold War ended, the stockpiles were reduced even further. Recent estimates of the number of Russia's operational nonstrategic nuclear weapons range from approximately 1,000 to 4,000.[6]

The United States could also reposition its BMD assets in Europe or elsewhere around Russia's periphery to threaten Russia's nuclear deterrent forces more directly. NATO has already completed the first two phases of a four-phase program for developing a layered BMD system

6 Amy F. Woolf, *Non-Strategic Nuclear Weapons*, Washington, D.C.: Congressional Research Service, RL32572, February 21, 2017b.

designed to intercept short-, medium-, and intermediate-range ballistic missiles aimed at Europe and ICBMs aimed at the United States from the Middle East.[7] The United States and Japan have Patriot batteries and Aegis-equipped destroyers positioned in and around Japan and South Korea to intercept short- and medium-range ballistic missiles fired from North Korea.[8] The United States has had a Terminal High-Altitude Area Defense system in Guam since 2013 and completed another such deployment to South Korea even more recently.[9] U.S. leaders could increase the challenge to Russia by adjusting the position and orientation of these systems in Europe to enable them to engage a greater portion of Russia's theater ballistic missile force. Similarly, the systems in and around Japan could be shifted farther north and positioned to engage missiles fired from the Russian Far East or North Korea.

All of these moves would heighten Russian anxieties to varying degrees, but each of them would also likely entail additional risk.

Potential Benefits

Deploying bombers to distant bases around Russia's periphery would certainly get Moscow's attention and raise Russian anxieties. U.S. leaders used this tactic several times during the Cold War, sometimes hinting that the aircraft were nuclear-armed, to threaten their Soviet counterparts during crises.[10] Russian leaders would likely find such deployments even more threatening today. Low-observable bombers, such as the B-2 Spirit or B-21 Raider (currently under development), might be able to penetrate Russia's integrated air-defense system (IADS), particularly if supported by electronic warfare (EW) assets to

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7 NATO, "Ballistic Missile Defence," July 25, 2016b.

8 Ian E. Rinehart, Steven A. Hildreth, and Susan V. Lawrence, *Ballistic Missile Defense in the Asia-Pacific Region: Cooperation and Opposition*, Washington, D.C.: Congressional Research Service, R43116, April 3, 2015.

9 Gaynor Dumat-ol Daleno, "Generals Tour Guam THAAD," *Pacific Defense News*, November 5, 2016; Paula Hancocks and Joshua Berlinger, "Missile Defense System That China Opposes Arrives in South Korea," CNN, March 7, 2017.

10 For instance, see Office of the Historian, "Atomic Diplomacy," *Milestones: 1945–1952*, Washington, D.C.: U.S. Department of State, undated.

degrade the effectiveness of Russian detection, tracking, and targeting systems. Even older bombers, such as B-52s and B-1 Lancers, though they would not survive penetration missions, could deliver cruise missiles from outside the IADS envelope, and some would likely succeed in penetrating Russian defenses to strike key targets.

Deploying large numbers of strike fighters to bases close to Russia would likely concern Moscow even more. Not only would low-observable platforms, such as the F-22 Raptor and F-35 Lightning II, present serious penetration threats against Russia's IADS—again, with older fighters delivering cruise missiles from safer distances—the closer ranges would allow shorter flight times, giving Russian leaders less warning and time for decisionmaking.

Facing either of these threats—particularly if the United States stockpiles nonstrategic nuclear weapons at bases where the bombers or fighters deploy—might make Russian leaders anxious enough to significantly increase investments in their air defenses. The Russian Federation already has the most-sophisticated IADS in the world, but confronted with the threat of high numbers of potentially nuclear-armed penetrating bombers, fighters, and cruise missiles, it would need to make its defenses even more capable and robust. Key areas of new investment might include sensor capabilities to better detect penetrating aircraft and missiles, additional mobile command-and-control centers, radar transmitters and receivers, transporter-erector-launchers, and longer-range surface-to-air missiles. Russian leaders might even conclude that they need to invest in greater numbers of their best (and most expensive) fighter interceptors to engage U.S. and allied bombers and fighters farther away from Russia's territory—before they can launch their cruise missiles.

Repositioning U.S. and allied BMD systems to better engage Russian ballistic missiles would also alarm Moscow. Although missile defense systems in Europe and Asia are far from being sufficiently robust to threaten Russia's strategic nuclear deterrent forces, Russian policy documents and statements from its leaders have repeatedly insisted they risk "undermining global stability and violating the estab-

lished correlation of forces in the nuclear-missile sphere."[11] Russian officials privately acknowledge that current BMD systems lack such capabilities, but they worry that today's systems might serve as a foundation that the United States could build on to make this threat credible in the future.[12] Confronted with U.S. and allied BMD systems repositioned to better intercept Russian missiles, Moscow would likely feel compelled to invest in more or enhanced missiles—not only to saturate these defenses in order to reach the intended targets but also to target the BMD systems themselves.

Risks

The potential benefits would not come without risks, and some of them would be substantial. Deploying bombers and additional tactical nuclear weapons to bases in Western Europe and on Pacific islands would threaten Russian leaders, but Moscow might react to those threats in ways contrary to U.S. and allied interests. Instead of investing large amounts of money in air defenses, Russia could choose to build up its arsenal of longer-range missiles to hold these bases at risk. Deploying missiles with ranges above 500 km would violate the INF Treaty.[13] Were Russian leaders committed to remaining in compliance with that agreement, they would need to invest in more-expensive defensive measures, such as upgrading their IADS or developing advanced long-range fighters. However, recent behavior suggests Russian leaders might not consider the INF Treaty a constraining factor.[14] Russian missile investments in reaction to U.S. bomber and fighter deployments might alarm European allies and risk the loss

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[11] Kremlin, *Military Doctrine of the Russian Federation*, Sec. II, Para. 12.d, Moscow, 2014. Also see Sec. II, Para. 15 and Sec. IV, Para. 106 of Kremlin, 2015b.

[12] Bilyana Lilly, *Russian Foreign Policy Toward Missile Defense: Actors, Motivations, and Influence*, Lantham, Md.: Lexington Books, 2014.

[13] See United States of America and the Union of Soviet Socialist Republics, 1987.

[14] See Michael R. Gordon, "Russia Has Deployed Missiles Barred by Treaty, U.S. General Tells Congress," *New York Times*, March 8, 2017b; Amy F. Woolf, *Russian Compliance with the Intermediate-Range Nuclear Forces (INF) Treaty: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, R43832, March 15, 2017c.

of access to bases in their countries and the loss of their cooperation in other important endeavors. This would be less of a concern in the Pacific, were the United States to deploy bombers to Guam and other U.S. territories; however, the deployments there might antagonize China and Russia, resulting in both countries building additional missiles to reach these U.S. bases.

The risks of posturing additional strike fighters in Eastern Europe and Japan are even greater. Putting them at closer bases could bring them within range of Russia's short-range ballistic missiles—weapons much more numerous in Russia's inventory than in NATO's. These risks could be mitigated somewhat by making the deployments periodic and rotating them among multiple locations rather than stationing the aircraft at Eastern European bases permanently. However, there are other risks to consider. While putting strike assets close to Russia would reduce the time available for Russian military leaders there to detect and respond to air and cruise missile attacks, it would leave U.S. and allied leaders even less time to detect and respond to Russian missile attacks on the assets now located at those bases. This combination of mutual vulnerability and risk of surprise attack could be seriously destabilizing in a crisis, especially if tactical nuclear weapons are also stored at close bases.[15]

Repositioning U.S. and allied BMD systems to threaten Russia could create similar dynamics with more-serious consequences. Putting these systems in allied countries would likely make those countries targets of Russian missile strikes in the event of war. More seriously, if Russian leaders become convinced that these systems might intercept enough missiles to put their strategic deterrence in doubt, they could feel compelled to strike first in a crisis out of fear that U.S. forces are about to do so, trusting their missile defenses to intercept the weakened response from Russia's battered missile forces.

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[15] For an analysis of instabilities that could result from basing strike fighters close to an opponent, see Forrest E. Morgan, *Crisis Stability and Long-Range Strike: A Comparative Analysis of Fighters, Bombers, and Missiles*, Santa Monica, Calif.: RAND Corporation, MG-1258-AF, 2013.

Likelihood of Success

Of the four changes in force posture and operations examined, the bomber option (augmented with the redeployment of nonstrategic nuclear weapons to Europe) would seem to offer the greatest promise as a cost-imposing strategy. Confronted with frequent bomber deployments to theater bases where nuclear warheads are stored, Russian leaders would likely invest in additional precision-guided missiles with sufficient range to hold those bases at risk. However, Moscow would also realize that the United States would keep a substantial percentage of the bombers airborne at all times during a crisis, leaving Russia little opportunity to destroy many of them with a preemptive strike on the bases. Therefore, Russian leaders would be forced to consider how to increase the effectiveness of their IADS and the survivability of the bombers' potential targets. Attempting to harden critical targets against even small-yield nuclear strikes, or making greater numbers of fixed nodes mobile, could require expensive investments. Were U.S. leaders able to communicate a credible threat that the bombers might be armed with nuclear weapons, Russian leaders might become anxious enough to invest considerable sums in increasing survivability and improving their air defenses.

Posturing fighters close to Russia's borders could have effects similar to posturing bombers at more-distant bases but would carry greater risk. U.S. and European leaders would be less inclined to position nuclear weapons at these locations because of the stability concerns their proximity would raise and the need to rotate the fighters among multiple locations. This would still confront Russia with a heightened conventional threat that could cause its leaders to invest more in upgrading the IADS. However, with the fighters deployed to locations in range of much higher numbers of Russian ballistic and cruise missiles, Moscow might be inclined to rely more heavily on countering the fighter threat by striking those airfields, even if they are dispersed and the aircraft rotated among them. As in the bomber option, U.S. leaders might try to keep some percentage of fighters airborne throughout a crisis. But, given the need for each aircraft to fly multiple sorties during a conventional conflict, Russian leaders would probably be confident that they could destroy considerable numbers of fighters on the ground

and shut down their deployment airfields early on with little or no addition to their missile inventory. Even if Moscow were to decide to add some number of missiles to its inventory, that response would probably be less expensive than upgrading its IADS, offering the United States little benefit in return for the increased risk of crisis instability.

Repositioning BMD assets in Europe and Asia to better intercept Russian missiles would likely be the least effective cost-imposing strategy. Russia could easily saturate current systems and planned upgrades with a small percentage of its existing missile inventory, leaving many missiles still available to hold U.S. and allied targets at risk. Given that repositioning BMD assets would probably make them less effective in their assigned missions—defending Europe and the United States from missiles launched from the Middle East, and defending Japan, South Korea, and U.S. forces in Northeast Asia from missiles launched from North Korea—doing so would appear to be a poor move with little or no cost imposition on Russia.

Measure 2: Increase Aerospace Research and Development

During the Cold War, the U.S. air- and space-related actions that appear to have been most effective in getting Moscow to spend money on programs it could not afford have usually been in the realm of R&D. U.S. developments in air and space have goaded Russian leaders into spending billions of rubles on a moon race and multiple arms races. Therefore, increases in aerospace R&D might be an effective way to get Russia to extend itself in the emerging strategic competition. Possible approaches include making greater investments in low-observable aircraft, autonomous aircraft or RPAs, long-range strike aircraft and missiles, longer-range HARMs, and new EW technologies for degrading or defeating enemy IADS. More-exotic R&D efforts could focus on such items as long-range, precision-guided conventional missiles (e.g., CPGS); space-based weapons; or transatmospheric strike aircraft (i.e., "spaceplanes"). Alternatively, the United States could focus on

trying to make its own national security space infrastructure and that of its allies more resilient to Russian attack.

Potential Benefits

Most of these developments would exploit Moscow's demonstrated fear of U.S. airpower capabilities and doctrines. As mentioned earlier, Russia has already invested a great deal of money in developing a highly sophisticated IADS, focusing mainly on ground-based defenses, because it feels threatened by U.S. airpower. Russian military publications have ruminated over threats presented by low-observable aircraft armed with precision-guided weapons,[16] and Russia's national military doctrine has even suggested that conventional long-range strike could present an existential threat that would justify Russia resorting to the use of nuclear weapons.[17] Developing new low-observable, long-range bombers or simply adding significantly more of types already available or programmed (B-2s and B-21s) would be worrisome for Moscow. Similarly, developing autonomous or remotely piloted strike aircraft and producing them in high numbers would present Russia with the threat that its IADS could be penetrated via saturation attacks at selected locations.

Developing more-sophisticated EW capabilities to degrade Russia's detection and tracking radars or a new long-range HARM for targeting and destroying them would threaten the viability of the Russian IADS directly. Developing new long-range cruise missiles or significantly adding to the inventory of existing missiles would threaten both the IADS and the targets it is designed to protect, such as operational and strategic command-and-control nodes. Long-range precision-guided conventional missiles, such as those envisioned for the CPGS mission, would be even more frightening because they could strike with very little warning and be difficult to defeat. Posturing weapons in space or developing spaceplanes designed to strike terrestrial targets

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16 See, for instance, V. F. Miruk, "Aerospace Defense as a Strategic Stability Factor," *Military Thought*, No. 2, 1997; G. P. Kupriyanov, "Principal Trends in the Evolution of Space Warfare," *Military Thought*, No. 1, 2005; B. F. Cheltsov, "Matters of Air and Space Defense in Russia's Military Doctrine," *Military Thought*, No. 2, 2007.

17 See Sec. III, Para. 27, of Kremlin, 2014.

would have similar effects with even shorter warning times and longer reach. Alternatively, investing in making U.S. and allied space capabilities more resilient (using such approaches as proliferating and dispersing force enhancement capabilities across high numbers of SmallSats) would not threaten Russia directly but would generate pressures in Moscow to develop ways to overcome these systems and undermine the warfighting advantages they provide to U.S. forces.

Any of these developments could prompt Moscow to invest substantial resources in trying to find ways to defend Russia's leaders, infrastructure, and critical capabilities. Developing new EW systems or more-capable penetrating bombers could compel Russia to invest in expensive upgrades to the detection, tracking, and targeting capabilities of its IADS. Adding substantially to the numbers of existing U.S. bombers; developing autonomous strike aircraft; or developing a new, longer-range HARM or cruise missile could have similar effects. These developments could also prompt Russia to develop new air superiority fighters with greater capabilities and longer ranges to intercept the bombers and strike aircraft farther from Russian targets. This response would be even more likely if the United States developed air-delivered hypersonic cruise missiles or boost-glide vehicles because of the difficulty of defeating such weapons once they are launched. CPGS would not trigger new fighter development in Russia because it would be based in hardened silos or on submarines or aircraft and operating at distances that fighters could not reach. However, CPGS might lead Russia to invest greater sums of money in hardening critical targets or making more of them mobile. CPGS could also trigger Russian investment in BMD, which could be a very costly undertaking. The development of space-based weapons or spaceplanes, alternatively, would likely prompt Russian leaders to invest in counterspace weapons, such as direct-ascent kinetic anti-satellite systems and high-powered lasers or other directed-energy weapons. U.S. SmallSats could have similar effects, although pressures to find ways to defeat those would likely be less than if the United States were to put weapons in space. In any case, all of these developments would likely incentivize Moscow to devote ever-greater resources to making its command-and-control systems harder, more mobile, and more redundant.

Risks

Some of the risks associated with increases in aerospace R&D mirror those of changes in force posture and operations, while others are different. The most-serious risks revolve around undermining stability in a crisis. If reposturing existing BMD systems in Europe and Asia would be destabilizing, then deploying new BMD systems with greater capabilities could be even more destabilizing if they are deployed to either theater. Developing autonomous strike aircraft and new penetrating bombers could also be destabilizing if they are deployed to bases within range of Russia's conventional missiles. Space-based weapons could be destabilizing because of their vulnerability to counterspace weapons. Deploying CPGS could be the most destabilizing of all, if Russian leaders were to conclude that the only way to protect themselves would be to strike first in a crisis. CPGS could be particularly dangerous if launched on ICBMs or SLBMs with trajectories resembling those used by nuclear-armed missiles because it would be difficult, perhaps impossible, to determine whether the vehicle is armed with a conventional or nuclear warhead until detonation. In a crisis or conventional conflict, Russian leaders might panic upon receiving alarms from their strategic warning systems and launch nuclear counterstrikes without waiting for the incoming missiles to detonate.[18]

Another risk that U.S. policymakers should consider is that of being drawn into arms races that result in cost-imposing strategies against the United States. Investing in BMD systems and space-based weapons would alarm Moscow, but measures that Russia could take to defend against such developments would probably be considerably cheaper than what these systems would cost the United States. BMD is a challenging mission. Developing capable systems and fielding them in sufficient number to present a credible threat to Russia's missile forces would be very expensive. Conversely, defeating such systems

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[18] Another issue worth considering is that CPGS launchers would count against the number of strategic launch vehicles allowed under New Strategic Arms Reduction Treaty (START). If U.S. leaders chose to deploy some number of CPGS launchers, they would have to reduce the number of strategic nuclear delivery vehicles available to the United States by that number to remain in compliance with the treaty.

would be a relatively inexpensive undertaking.[19] The most basic strategy for overcoming missile defenses is to simply saturate their capacities with salvo launches. If more missile defenses are added, Russia could simply produce and posture more missiles against it, and the per-unit cost of offensive missiles is much lower than that of the BMD capabilities needed to intercept them. Similarly, space-based weapons would be very expensive and their capabilities would be limited, offering a disappointing amount of bang for the buck. Moreover, orbital systems would be vulnerable to attack because they move on predictable paths and are difficult to defend against terrestrial-based kinetic or directed-energy weapons targeting them. And, like BMD systems, the weapons designed to attack space-based weapons would be much cheaper than their targets. Engaging in an arms race involving U.S. space-based weapons and Russian terrestrial defenses would likely result in very high costs for the United States with little or no increase in U.S. capability.

Finally, the impact on Chinese force development would need to be considered for any of these options. While Russia has limited means to compete with U.S. technological developments, China has much greater resources.

Likelihood of Success

Increases in aerospace R&D offer good options for cost-imposing strategies against Russia, but some are clearly better than others and some approaches should be avoided. The approaches that offer the most promise are those that would be difficult and expensive for Russia to defend against but affordable for the United States. Among those that best meet those criteria are systems designed to degrade or defeat Russia's IADS. Developing more-capable EW systems and longer-range HARMs and cruise missiles would appear to be affordable moves that could drive disproportionately expensive upgrades to Russia's IADS.

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[19] For a discussion of the costs of missiles compared with missile defense based on data from Israel, as well as a discussion of that situation in a Russian context, see Raphael S. Cohen, David E. Johnson, David E. Thaler, Brenna Allen, Elizabeth M. Bartels, James Cahill, and Shira Efron, *From Cast Lead to Protective Edge: Lessons from Israel's Wars in Gaza*, Santa Monica, Calif.: RAND Corporation, RR-1888-A, 2017, pp. 56, 182–183.

Assuming Moscow knows or suspects that U.S. EW systems might be able to defeat its IADS—such developments are usually not transparent to the opponent and often kept secret so they cannot be countered—Russia would be forced to look for ways to improve the detection, tracking, and targeting capabilities of its radar network. Longer-range HARMs and cruise missiles would cause Russian leaders to seek ways to extend the ranges of its radar capabilities and also of its surface-to-air missiles. Confronted with such systems, Russian leaders might even conclude they must develop a new long-range fighter to engage U.S. aircraft at distances beyond the range of its surface-to-air missile envelope before they can launch their HARMs and cruise missiles. Moscow would have to anticipate that the airspace from which U.S. strike aircraft would launch their missiles will be defended by fifth-generation fighters, so the new Russian fighter would have to be highly advanced and therefore very expensive.

New low-observable bombers and autonomous or remotely piloted strike aircraft could have similar effects on Russian investment decisions. However, adding more nuclear-capable bombers to the U.S. inventory would require the United States to reduce the numbers of its other nuclear-capable launchers (ICBMs and SLBMs) to remain in compliance with New START limitations. Moreover, developing new bombers and other advanced aircraft would be more expensive than some other options. U.S. leaders should consider developing these only if further analysis indicates they will be affordable enough to produce in sufficient numbers to drive substantial Russian investment in counter-capabilities.

CPGS might also offer promising avenues to cost-imposing strategies, but the costs they impose on Russia might not be worth the threats to stability they generate. Ground- and submarine-based CPGS might drive greater Russian investments in hardening and mobility, but U.S. leaders would probably conclude that the concomitant danger of inadvertent nuclear war would outweigh those benefits. Air-delivered CPGS (e.g., hypersonic cruise missiles) would be somewhat more promising, not only because they might incentivize Russian spending on hardening and mobility but also because the fear they would engender in Moscow would make it more likely that Rus-

sian leaders would conclude that they need a new long-range fighter. U.S. leaders should develop these capabilities if they are affordable but should be cautious in posturing them during a crisis to avoid scaring Russian leaders so badly that they conclude that their only alternative is to launch a preemptive attack.

SmallSats and other approaches for making U.S. space force enhancement capabilities more resilient are probably good investments even if they do prove to be expensive. They might not contribute to cost-imposing strategies against Russia; in fact, if they succeed in making the U.S. national security space infrastructure highly resilient to attack, Russia might not bother investing in capabilities to do so. However, given the many ways that U.S. forces' warfighting effectiveness is enhanced by support from space systems, investing in making these systems more resilient would be worthwhile in its own right, in terms of a potential conflict not only with Russia but also with other actors.

Conversely, investing in additional BMD or putting weapons in space would not appear to be sound cost-imposing strategies. These systems might be not only be destabilizing but also very expensive, easily defeated, and—potentially—globally unpopular. Engaging Russia in an arms race in either of these classes of weapons would be tantamount to falling prey to a cost-imposing strategy against the United States. Developing spaceplanes would face similar challenges in that such a capability would be very expensive. However, spaceplanes would not be as vulnerable as space-based weapons because they would not go into orbit until they are employed, so they would not be as easily detected, tracked, and targeted. Further analysis should be done to determine whether missions of sufficient importance exist to justify the costs of developing spaceplanes and the threats to crisis stability they might generate. In any case, whether needed for other reasons, investing in spaceplanes probably would not be an effective strategy for imposing costs on Russia.

Measure 3: Increase Air and Missile Components of the Nuclear Triad

During the 1950s and 1960s, the Soviet Union invested enormously in its nuclear forces in efforts to overmatch the capabilities presented in the U.S. nuclear triad. Even after signing the Strategic Arms Limitations Treaty (SALT) in 1972 and the SALT II in 1979, Moscow continued investing in platforms, delivery systems, and warheads not barred under provisions of these and other arms control agreements. Since the end of the Cold War, Moscow and Washington have entered into a series of additional nuclear arms control agreements, progressively reducing the size of each side's strategic nuclear arsenal and the numbers of delivery systems it can field. Table 6.1 summarizes the nuclear arms control agreements reached by Moscow and Washington during and since the Cold War.

As Table 6.1 indicates, U.S. and Russian leaders have signed a series of arms control agreements reducing the numbers of strategic nuclear warheads that each side could have—from the tens of thousands they had in the 1970s to 6,000 in the early 1990s and the goal of 1,550 set in 2011 (to be implemented by February 5, 2018).[20] Similarly, the agreements have reduced the maximum allowed numbers of strategic nuclear delivery vehicles from 1,710 ICBMs and SLBMs for the United States and 2,347 of those types for the Soviet Union in 1972 to the current limit, set in 2011, of 700 of all types (including strategic bombers) for each side.[21] Although not all the treaties went into force—Congress never ratified the SALT II agreement, and implementation of START II was indefinitely delayed after the United States withdrew

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[20] See United States of America and the Union of Soviet Socialist Republics, Treaty on Reduction and Limitation of Strategic Offensive Arms and Associated Documents (START), July 31, 1991; United States of America and the Russian Federation, Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START), April 8, 2010.

[21] United States of America and the Union of Soviet Socialist Republics, 1991; United States of America and the Russian Federation, 2010.

Table 6.1
Strategic Nuclear Arms Control Agreements

Treaty Detail	SALT	SALT II	START	START II	SORT	New START
Status	Expired	Never entered into force	Expired	Never entered into force	Replaced by New START	In force
Date signed	May 26, 1972	June 18, 1979	July 31, 1991	January 3, 1993	May 24, 2002	April 8, 2010
Date ratified in United States	August 3, 1972	Not ratified	October 1, 1992	January 26, 1996	March 6, 2003	December 22, 2010
Date entered into force	October 3, 1972	N/A	December 5, 1994	N/A	June 1, 2003	February 5, 2011
Implementation deadline	None	N/A	December 5, 2001	N/A	N/A	February 5, 2018
Expiration date	October 3, 1977	N/A	December 5, 2009	N/A	February 5, 2011	February 5, 2021
Maximum allowed warheads	No restriction	No restriction	6,000	3,000–3,500	1,700–2,200	1,550
Maximum allowed delivery vehicles	U.S.: 1,710; Soviet Union: 2,347 (ICBMs and SLBMs only)	2,250	1,600	Eliminated heavy ICBMs and MIRVs on ICBMs	Not addressed	700

SOURCE: Arms Control Association, “U.S.-Russian Nuclear Arms Control Agreements at a Glance,” April 1, 2014.
NOTE: MIRV = multiple independently targeted reentry vehicle; SORT = Strategic Offensive Reduction Treaty.

from the Anti-Ballistic Missile (ABM) Treaty in 2002—both sides observed some of the agreed limitations.[22]

Potential Benefits

Given the determination that Russian leaders have historically demonstrated to at least maintain parity with the United States in strategic nuclear weapons, U.S. leaders could probably goad Russia into a costly arms race by breaking out of the nuclear arms control regime. Washington could abrogate New START and begin aggressively adding to its nuclear stockpile and to its air and missile delivery systems. Moscow would almost certainly follow suit, whatever the cost.

Risks

It is doubtful that the benefits of such a strategy would outweigh the costs for the United States. The financial costs of a nuclear arms race would probably be as high for the United States as they would be for Russia, perhaps higher. But the more-serious costs would be political and strategic. Breaking out of the nuclear arms control regime would trigger a hail of condemnation from multiple quarters, domestic and international. It would cause Russian leaders to question whether to remain in other important treaties, such as the INF Treaty. It could jeopardize continued support for the Non-Proliferation Treaty in many countries, possibly encouraging states that are technically capable of developing nuclear weapons but have thus far chosen not to do so to reverse that stance and take steps to protect themselves in what they

[22] During the delayed implementation of START II, neither side made the specified reductions. However, negotiations for START III began in 2000, and the Strategic Offensive Reduction Treaty, signed in 2002 and implemented in 2003, mandated deeper reductions with which both sides complied. On SALT II compliance, see Office of the Historian, "Strategic Arms Limitations Talks/Treaty I and II," *Milestones: 1969–1976*, Washington, D.C.: U.S. Department of State, undated-b. For details on START II and the Strategic Offensive Reduction Treaty, see United States of America and the Russian Federation, Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II), January 3, 1993; Arms Control Association, "Strategic Offensive Reductions Treaty at a Glance," September 15, 2006. Russia, however, has begun to add MIRVs to its nuclear arsenal, which would have been banned under START II. See Michael Scollon, "Russia: A New MIRV Emerges," Radio Free Europe/Radio Liberty, May 31, 2007.

perceive to be a more dangerous world. All of these developments would work against U.S. interests.

Likelihood of Success

All considered, this would not appear to be a desirable strategy for imposing costs on Russia, assuming Russia does not do it first.

Recommendations

Air and space remain lucrative domains for implementing cost-imposing strategies against Russia. However, not all approaches for doing so offer sufficient benefits or probabilities of success to justify the associated costs and risks for the United States. Table 6.2 summarizes the findings of the analysis of alternative strategies for imposing costs on Russia in the air and space domains.

The best cost-imposing strategies are those that would incorporate a combination of approaches that are affordable for the United States, do not create excessive risks of instability, and generate enough anxiety in Moscow that Russia would be forced to invest in costly defensive (or counteroffensive) measures. The results summarized in Table 6.2 suggest that strong contenders for a cost-imposing strategy against Russia would include investments in long-range cruise missiles, long-range HARMs, and (if they are affordable enough to be produced in high numbers) autonomous aircraft or RPAs. Investments in more-sophisticated EW capabilities would complement these options but might not trigger Russian investments to counter them because Russian leaders might not know that U.S. EW systems have been upgraded. Russian anxieties regarding these options could be further heightened by periodic bomber deployments to European and Asian bases, along with the deployment of additional tactical nuclear weapons to Europe and Asia.

Options that do not seem to be good candidates for a cost-imposing strategy include posturing fighters close to Russia; reposturing or developing more BMD; and developing exotic weapons, such as CPGS, space-based weapons, or spaceplanes. These options would be very expensive for the United States, potentially destabilizing, or both. Moreover, Moscow

Table 6.2
Findings for Air and Space Measures

Measure	Benefits	Costs and Risks	Likelihood of Success
Change air and space force posture and operations			
Shift posture of bombers	Medium	Low	High
Shift posture of fighters	Medium	High	Low
Deploy additional tactical nuclear weapons in Europe	Low	High	High
Reorient BMD	Low	Medium	Low
Increase aerospace research and development			
Develop more low-observable aircraft	Medium	Medium	Medium
Develop autonomous aircraft or RPAs	Medium	Medium	High
Develop longer-range cruise missiles	High	Medium	High
Develop longer-range HARMs	High	Medium	High
Develop more-sophisticated EW	Medium	Low	Medium
Invest in CPGS	Medium	High	Medium
Develop space-based weapons	Medium	High	Low
Develop spaceplanes	Medium	High	Low/ Medium
Invest in SmallSats	Medium	High	Low
Increase air and missile components of the nuclear triad			
Break out of nuclear arms control agreements	Medium	High	Low

could counter some of these options relatively easily with modest investments in additional capabilities. Breaking out of the nuclear arms control regime would appear to be the worst strategy of all, given the costs and risks that such a move would entail.

Finally, although developing SmallSats and making other investments in the U.S. orbital infrastructure would probably not be an effective cost-imposing strategy against Russia, such investments might be warranted to improve the operational resilience of U.S. national security space capabilities.

CHAPTER SEVEN

Maritime Measures

The Russian Navy is in the process of recovering from a period of severe decline following the end of the Cold War and the break-up of the Soviet Union in 1991. This might present the United States and its allies with opportunities to influence how Russia invests in its navy. In this chapter, we briefly discuss the current status of the Russian Navy compared with U.S. and allied navies and then propose three policies that could extend Russia's naval investments in a manner beneficial to the United States.

The Russian Navy has transitioned from a global blue-water navy to a force that primarily operates in its coastal regions. At the end of the Cold War, the Soviet Union had more than 200 major surface combatants and nearly 200 submarines.[1] The current Russian Navy has been reduced to 31 surface combatants, including 11 frigates, and 99 smaller combatants. These smaller ships are primarily patrol craft and corvettes, have limited endurance, and typically operate within Russian littoral areas.

The shift from a blue-water navy to a coastal one is more apparent in the Russian naval acquisition programs. Since 1990, the only major surface combatants that Russia has commissioned are five frigates, with ten more hulls under construction. Some recent discussion in the press has suggested the possibility of acquiring a destroyer-sized combatant,

1 U.S. Office of the Chief of Naval Operations (CNO) and U.S. Office of Naval Intelligence (ONI), *Understanding Soviet Naval Developments*, Washington, D.C.: U.S. Department of the Navy, NAVSO P-3560 (Rev 7/91), 1991, pp. 49–81.

but construction has not been initiated.[2] Meanwhile, Russia has several small surface combatant programs under way.

Russia's submarine production situation is less dire. Russia has commissioned nine submarines since 1990 and has four more hulls in construction. However, only one of these is a nuclear-powered attack submarine (SSN). The other submarines commissioned are three SSBNs and five diesel-powered submarines. The predominance of diesel-powered submarines is consistent with a coastal navy focus. The contrast in naval vessel construction with the U.S. Navy is startling. Since 1990, the U.S. Navy has acquired 64 destroyers and 16 SSNs. The U.S. Navy continues to acquire two to three destroyers and two SSNs per year (Table 7.1).[3]

The Russian Navy has introduced several weapon systems that mitigate some of the deficiencies to its current fleet structure and acquisition program. The Kalibr family of missiles includes a land attack cruise missile (LACM) and an anti-ship cruise missile (ASCM). Both missiles can be fired from surface ships, submarines, and ground launch-

Table 7.1
Russian and U.S. Naval Force Levels, 2015

Craft	Russia	United States
SSBN	12	14
SSN and guided nuclear submarine	26	58
Diesel submarine	18	0
Aircraft carrier	1	10
Large surface combatants	30	85
Small surface combatants	77	26
Amphibious ships	19	30

SOURCE: ONI, 2015; CNO, 2015.

2 ONI, *The Russian Navy: A Historic Transition*, Washington, D.C.: U.S. Department of the Navy, December 2015, p. 23.

3 CNO, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2017*, Washington, D.C.: U.S. Department of the Navy, July 2016, p. 5.

ers. The reported operational ranges for the LACM and ASCM are 2,500 km and 300 km, respectively. Supplementing these cruise missiles is the Oniks anti-ship missile that combines long range (300 km) with high speed (Mach 2.5).[4]

The emerging picture of the Russian Navy suggests a force that is recapitalizing around a limited set of capable coastal platforms outfitted with excellent weaponry. There are two notable exceptions. First, the Russian submarine force continues to acquire and deploy advanced nuclear-powered attack and ballistic submarines. Russian SSNs, though few in number, are particularly capable of operations at extended ranges from Russia. Second, the combination of smaller surface combatants, diesel-electric submarines, and long-range modern anti-ship weapons means that the Russian surface navy can carry out a robust access denial strategy.

The decision to focus on local operational areas with its navy means that Russia's industrial infrastructure to design, build, and maintain a large blue-water navy has atrophied. An obvious means to extend Russia would be to lead it to invest in capabilities aligned to a blue-water navy. To move away from its littorals would take time and resources that Russia is currently applying elsewhere.

Measure 1: Increase U.S. and Allied Naval Force Posture and Presence

Increasing U.S. and allied naval force posture and presence in Russia's operating areas could lead Russia to increase its naval investments, thus potentially diverting funds from more-dangerous areas. There are two possible components to this strategy. First, to maximize pressure, the United States and its allies should increase their naval presence in all of the Russian operational areas. Russia's geography makes it difficult to move ships and submarines between its operational fleets. The U.S. Navy has the force structure and—equally important—a global set of allies that can increase presence within Russia's northern, Baltic,

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[4] ONI, 2015, p. 34.

and Pacific operational areas simultaneously. Second, the aim should be to focus Russian efforts on areas that require the highest levels of investment to respond. This can be done in a variety of ways, but two viable candidates are generating investment in anti-submarine warfare (ASW) and in larger blue-water ships rather than smaller coastal ships.

The United States has allies that can supplement its efforts to increase naval presence in three of the Russian Navy's operational areas. In the Pacific area of responsibility, the U.S. Navy and Japan have a long history of joint operations. Both the United States and Japan have increased their naval presence in response to growth in the Chinese navy, and there might be opportunities to divert some of those assets toward Russia. For example, the U.S., Japanese, and South Korean navies recently conducted a three-day missile defense exercise off the Korean coast in response to North Korean missile firings. The United States and Japan could run similar missile defense and ASW exercises in the seas off the Northern Japanese island of Hokkaido.

The potential to entice Russia into costly investments might be greater in the Baltic and Northern fleet operating areas. The potential threat from Russian military action in the Baltic countries has made the Baltic Sea a region of recent great interest to NATO. The Russian Baltic fleet is relatively small: two diesel-powered submarines and nine surface combatants. The NATO allies in the Baltic currently have significantly more capability and capacity. For example, Germany and Poland have ten diesel-powered submarines and 18 surface combatants in their fleets. Denmark, Norway, and the Baltic States have a variety of surface combatants and smaller surface craft that can be incorporated. Missing from this set of capabilities are the high-end, sophisticated command and control, surveillance, and warfighting capabilities resident in the U.S. Navy.

The inclusion of Sweden and Finland into an alliance is particularly attractive. The Swedish Navy has seven corvettes and five submarines, the Finnish Navy operates a force of eight fast-attack craft and a broad coastal defense system. In attempt to intimidate Sweden and Finland, Russia has increased its air and naval activity in the Baltic Sea,

including multiple incursions into territorial waters.[5] These actions also reflect Russian attempts to blunt NATO's efforts to increase its coordination with both nations.[6] However, the result of the recent uptick in Russian activities is that NATO has increased its efforts with Sweden and Finland. Exercises involving NATO, Sweden, Finland, and the United States in the Baltic Sea could increase the pressure on this small Russian fleet.

The Russian Northern Fleet is capable but relatively small, with only five major surface combatants and a substantial but aging submarine flotilla.[7] The U.S. Navy, along with its United Kingdom and French allies, could quickly stress this force with a series of extended deployments and exercises. U.S. and allied nuclear-powered submarines are likely able to operate throughout the Russian operational areas without significant fear of detection.[8] Therefore, publicly increasing deployments to the Russian Northern and Pacific fleet regions, and/or operating in a manner that allows the Russian Navy to detect the increased allied submarine presence (e.g., by increasing port calls in the area or conducting joint exercises), could significantly threaten both the Russian surface fleet and SSBNs in their operational bastions. In response to this increased activity, Russia could choose to invest in a proficient ASW force.

Benefits

Increasing U.S. and allied naval presence in the Russian operational areas has three potential areas of benefit. First, it could lead to increased Russian investments in areas of U.S. and allied strengths. Second, it

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[5] Franklin D. Kramer and Magnus Nordenman, "A Maritime Framework for the Baltic Sea Region," Washington, D.C.: Atlantic Council, Issue Brief, March 2016.

[6] NATO signed host-nation support agreements with Sweden and Finland at the 2014 Wales summit.

[7] In 2016, the Northern Fleet's flotilla was composed of seven SSBNs, 17 SSNs, and six diesel-powered submarines. ONI, 2015, pp. 17–19.

[8] Assessment is based on the challenges the United States still has in detected submarines, despite its sophisticated anti-submarine capabilities and the comparative lack of Russian response to U.S. submarine activity in Europe and the Western Pacific.

could lead to increased U.S. and allied naval capacity and improved collaboration. Third, it could improve the capability of the United States and its allies as pertain to China. This policy would also be consistent with the U.S. Navy's desire to expand its size to 355 ships.

The most obvious potential benefit of this policy measure is increased Russian investment in ASW and blue-water naval capabilities. These investments would maximize the resource demand on Russia while minimizing the impact on the United States and its allies. ASW is extremely time-consuming and resource intensive, and Russia has historically used its nuclear submarine force for this purpose. However, the increasingly stealthy nature of modern submarines has shifted ASW to an enterprise dominated by surface and aviation forces.[9] The U.S. Navy has a relatively large and modernizing fleet of SSNs that could directly threaten the Russian Northern and Pacific fleets, including SSBN bastions. Should Russia choose to respond to this increased SSN presence, it would require costly ASW investments. The high quality of the United Kingdom's *Astute*-class SSNs and of Japan's large diesel-powered submarines can also contribute to this effort. The challenge for the U.S. Navy would be to generate sufficient availability of SSNs to make this a consistent and concerted threat. The demand on the U.S. SSN fleet is already greater than the supply,[10] and the shrinking size of the fleet means this mismatch will increase until 2024, when the size of the fleet will begin to grow. In the Baltic Sea, Russian diesel-powered submarines have been an increasing source of concern for Sweden, Finland, and NATO.[11] This tactic can be turned on the Russians with the existing NATO and Swedish submarine fleets. In particular, Germany and Sweden have small but high-quality submarines that exceed Russian capabilities in terms of quality and quantity. Increasing their presence near the Russian operating areas could lead to investments that Russia has deemed unnecessary thus far.

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9 CNO and ONI, 1991, pp. 49–81.

10 Ronald O'Rourke, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, RL32665, June 7, 2017a.

11 Kramer and Nordenman, 2016.

The U.S. Navy and its allies have the ability to operate in and around Russian operating areas with a set of capabilities that Russia cannot currently counter. Russia's ability to project naval forces into blue-water areas is limited in both capacity and capability. Unless Russia chooses to completely cede those areas, it could have to increase its level of investment into blue-water naval assets.

Increased U.S. and allied naval presence has two ancillary benefits: improved collaboration with allied navies and improved posture relative to China. The U.S. Navy has a long tradition of conducting joint operations and exercises with its allies. Increasing the frequency and length of those interactions would be beneficial, particularly if those allies increase the size of their navies in response to Russia. For example, Japan recently announced an increase in its submarine force from 16 to 20 boats. While this increase is primarily driven by concerns about China, it might allow for increased Japanese undersea activity in Russia's Pacific Fleet operating areas. The secondary benefit of an improved posture relative to China is equally clear, particularly in light of improved collaboration with allies. As the United States and its allies increase their naval presence in Russian operating areas, the U.S. Navy effectively increases its capacity. Improved coordination in the Northern and Baltic operating areas could allow the United States to move more forces to the western Pacific. Any improved collaboration and capacity with Japan directly affects the calculus of China.

Risks

Improving the ability of the U.S. Navy to find and threaten Russian SSBNs, through either increased presence or improved capability, carries implicit risk. To generate increased expenditures, the elevated threat to their SSBN force must be apparent to Russia. The knowledge that this strategic asset is threatened could increase the propensity for a first strike from Russia.[12]

In addition, extending Russia by leading it to increase its naval investments broadly—and its ASW capabilities specifically—involves

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[12] Barry R. Posen, *Inadvertent Escalation: Conventional War and Nuclear Risks*, Ithaca, N.Y.: Cornell University Press, 1991.

some risk. The U.S. Navy currently faces a burgeoning competition with the Chinese Navy as it modernizes and expands. If Russian naval investments were to become large enough, the U.S. Navy would be faced with a second large and capable competitor—but this risk, while real, is remote. The level of investment that would be required for Russia to develop either an effective ASW or blue-water capability is enormous. These investments include the platforms required to perform the ASW mission (either surface ship or airborne), the force structure to protect those platforms while they are conducting the ASW mission, and the time and resources to develop and train specific ASW skills.

Likelihood of Success

The size of investment required by Russia to reconstitute a blue-water naval capability makes it unlikely it could be compelled or enticed to do so. However, Russia could be compelled to increase its ASW capabilities in response to U.S. and allied efforts. U.S. and allied submarines are relatively unaffected by Russia's access denial efforts, which threaten surface ships. Russia has a significant SSBN force that it continues to modernize and rely on as part of its strategic posture. Any threats that the United States and its allies might make against this force are more likely to drive a Russian response.

Deploying U.S. and allied surface fleets in and around Russian operating areas might be less likely to drive a Russian response. But the cost required to increase those deployments is equally low. Additionally, increased U.S. and allied naval exercises have the secondary benefit of improved collaboration.

The situation in the Baltic Sea presents a particularly interesting opportunity. NATO naval forces already have both numeric and capability advantages. The military balance becomes even more favorable if Swedish forces are included with those of NATO. Russia has made significant investments in access denial capabilities that threaten the ability of surface and aviation forces to operate freely. The combination of NATO and Swedish forces, particularly with the periodic assistance of U.S. naval forces, can challenge these Russian improvements. NATO and Sweden have a significant advantage in undersea capabilities, which could lead Russia to make ASW investments. In an

otherwise challenging environment, U.S. and NATO naval activities could put Russia on the defensive in the maritime portion of a Baltic Sea contingency.

Measure 2: Increase Naval Research and Development Efforts

Developing or being perceived as developing capabilities that force increased investment is a second method of extending Russia in the maritime arena. These R&D efforts include new programs specifically designed to provoke a Russian counter investment, or modifications of a current R&D program. For example, the U.S. Navy has significant efforts under way in directed-energy weapons, including both lasers and railguns. Publicizing the potential use of those future capabilities in a Russian contingency could precipitate a reaction. Finally, these R&D efforts are not limited to leading-edge technologies. Developing new weapon systems or repurposing current ones that call into question Russian capabilities can be useful.

As discussed in the first measure, the U.S. Navy has a distinct advantage in undersea warfare compared with Russia. Using this advantage to generate Russian investments in ASW might be a fruitful path. Currently, the only strike weapon carried by U.S. SSNs is the Tomahawk missile, which has been incredibly useful over its long life but is limited to striking fixed targets. The U.S. Navy could develop a missile or family of missiles that could suppress Russian air defenses (a submarine-launched, loitering anti-radiation missile) or attack-and-destroy armored vehicles (a submarine-launched version of the Army Tactical Missile System [ATACMS]).[13] Either weapon could change Russian planning assumptions. Russian military planners would then face the prospect of accepting additional risk in military planning, increasing forces involved in a given contingency, or investing in

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[13] Lockheed Martin is considering using its Joint Air-to-Surface Standoff Missile to deliver multiple smaller munitions. See Rachel Karas, "Highlights from Inside the Air Force," *Insider Defense*, April 28, 2017.

ASW efforts to blunt this U.S. development program. A second R&D effort worth consideration is to improve performance of U.S. submarine-launched torpedoes—e.g., longer range, higher speed, improved acoustics—to increase the perceived threat to Russian SSBNs in their arctic bastions. Again, Russia would be forced to accept additional risk to deployed strategic assets or to improve ASW capabilities. A third useful area is improved offensive surface- and air-launched weapons that allow the fleet to operate outside the Russian access denial ranges. This could lead Russia's navy to move farther offshore and into the strength of the U.S. and allied navies.

R&D efforts in the area of directed-energy weapons that threaten Russian access denial capabilities might provide leverage, particularly in a potential Baltic conflict. Directed-energy weapons that improve the effectiveness and radically lower the cost of anti-air and anti-missile engagements could change the cost relationship between offense and defense.[14] Russia would be faced with having to significantly increase its spending on anti-ship missiles, which the United States and its allies can counter on a cheaper shot-for-shot basis.

Potential Benefits

R&D into technologies that challenge Russia's operational advantages can directly impose costs on Russia or invert the cost curve in the current relationship between offensive and defensive systems. Developing new weapons that allow U.S. submarines to threaten a broader set of targets or enhance their ability to threaten Russian SSBNs could impose ASW costs on Russia. Development of air and missile defenses that use directed energy and cost less on a per engagement basis could call into question Russia's access denial strategies. Spreading these new capabilities across allied navies could impose more cost on Russia.

The benefit of these R&D efforts is not limited to Russian challenges. Improving the number and variety of strike weapons available

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[14] The U.S. Navy is developing hypervelocity projectiles for its deck-mounted 5-inch guns and rail guns for future surface combatants. Both technologies improve air and missile defense, potentially changing the cost ratio between offense and defense. Ronald O'Rourke, *Navy Lasers, Railgun, and Hypervelocity Projectile: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, R44175, October 17, 2017c.

to the U.S. Navy would have the same benefits in a Chinese context. Access denial weapons, primarily ASCMs and ballistic missiles, are becoming increasingly common. The benefit of low-cost but effective air and missile defense options would be useful in all future conflicts.

Risks

There are limited risks in pursuing these R&D efforts, which are broadly useful to the U.S. Navy and its allies. There is the possibility that Russia, or more likely China, would develop ASW capabilities in an effort to counter these threats, but those efforts are likely to be pursued anyway. There is also a chance that the opportunity cost of these R&D efforts would be too high if the United States were to pursue these efforts at the expense of other, higher-margin investments.

Likelihood of Success

Success is dependent on being able to develop these capabilities and on whether they are sufficient to influence Russian expenditures. The development of new weapons for submarines is a relatively low risk, though it would not necessarily come at a low cost. New undersea strike weapons can combine missile bodies, sensors, network links, and warheads from numerous systems already in production or development. Developing improved submarine-launched torpedoes also reflects low risk. The key question is whether the potential strike capacity from undersea platforms is significant enough to generate a Russian response—instead of pursuing expensive ASW efforts, Russia could choose to absorb the increased damage to its forces or add sufficient force structure to compensate.

The more-esoteric systems that invert the cost curve of air and missile defense have a higher development risk but also a higher potential payoff. Developing directed-energy capabilities that blunt access denial weapons and make the marginal defensive capacity cheaper than the marginal offensive capacity would impose major costs on Russia—and China. Strategies to limit the impact of U.S. air and naval dominance would become less relevant, and opponents would be forced to markedly increase force structure—a cost imposition—or radically change their military strategies.

Measure 3: Shift Nuclear Posture Toward SSBNs

The United States could increase the size of its SSBN fleet, which is considered the most secure leg of the strategic triad. SSBNs are deployed to Atlantic and Pacific operating areas, creating an extraordinarily difficult problem for Russia. Finding, tracking, and targeting the SSBN fleet would require a full set of blue-water naval capabilities and a robust ASW force.

Potential Benefits

If successful, this policy measure would lead Russia to invest in capabilities that can operate in a blue-water environment in two oceans. Russia would have to develop and acquire the ability to find and track these extremely stealthy submarines along with the ability to provide protection to those ASW assets in the face of vigorous opposition from the U.S. Navy. If Russia were to go down this path, significant investment would be required.

Risks

The risks to the U.S. strategic posture are limited. In order to actually threaten the undersea leg of the strategic triad, Russia must have the ability to threaten at least a significant portion of the deployed SSBN fleet simultaneously. That is an incredibly difficult task, and any Russian progress toward achieving it would be highly visible to the United States. A second risk involves the cost of increasing the size of the SSBN fleet. SSBNs are expensive to acquire and operate,[15] and increasing the fleet is likely to create opportunity cost because the U.S. Navy would not be able to invest those funds in other areas of need. Finally, any shift in nuclear posture would also require navigating relevant arms control treaties and other political considerations.

Likelihood of Success

Shifting the U.S. strategic posture is unlikely to entice Russia into changing its strategy. The requirement to build a robust blue-water

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[15] O'Rourke, 2017a, p. 35.

navy capable of defending large ASW task forces across two oceans is too expensive and the possibility of success too remote. Furthermore, Russia's implementation would be so slow that the United States could easily respond at far less expense. Moreover, while any shift in the U.S. nuclear posture might be viewed by Russia with apprehension, it might not be sufficient to prompt a change in policy.

Measure 4: Check the Black Sea Buildup

The Black Sea has long been an important economic and strategic outlet for Russia. One of the country's few year-round warm-water seafronts, the Black Sea ports provide a key economic transit point. Some 74,300 Russian vessels crossed through Bosporus in 2013, and some 24.6 million tons of Russian oil went through the Black Sea in 2014.[16] Unsurprisingly, the Black Sea also provides an important base for Russian power projection, and the base at Sevastopol is home to Russia's Black Sea Fleet.

Since its annexation of Crimea, Russia has increased its military presence in the region. It planned a $1 billion upgrade to its the Black Sea Fleet by 2020, including six submarines, six frigates, two missile corvettes, and other smaller craft.[17] Russia also plans to modernize the Belbek air base in Crimea and has deployed an advanced S-400 surface-to-air missile system to control the skies over the Black Sea.[18] It also has stationed some 28,000 troops there and could deploy up to 43,000 between 2020 and 2025, three times the number there were before Crimea's annexation.[19]

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16 "Turkey Has No Legal, Economic Basis to Close Bosphorus for Russian Ships," *Sputnik News*, November 26, 2015.

17 Sharyl Cross, "NATO–Russia Security Challenges in the Aftermath of Ukraine Conflict: Managing Black Sea Security and Beyond," *Southeast European and Black Sea Studies*, Vol. 15, No. 2, 2015, p. 164; Sam Jones and Kathrin Hille, "Russia's Military Ambitions Make Waves in the Black Sea," *Financial Times*, May 13, 2016.

18 Cross, 2015, p. 164; Ridvan Bari Urcosta and Lev Abalkin, "Crimea: Russia's Stronghold in the Black Sea," European Council on Foreign Relations, September 1, 2016.

19 Urcosta and Abalkin, 2016.

Russia's military buildup in the Black Sea increases the threat to NATO allies Romania, Bulgaria, and Turkey, as well as to Ukraine and Georgia. In a conflict with NATO, however, the Russian Black Sea Fleet could be bottled up. Assuming Turkish cooperation, NATO forces could enter but Russian forces could not leave.

Under current circumstances (and, again, with Turkish cooperation), the United States and its NATO allies could increase the number of naval exercises in the Black Sea, although the duration of any stay is limited by the Montreux Convention to 21 days. NATO already boosted its rotational presence after Russia's annexation of Crimea, prompting Russia to complain that NATO was violating this 1936 agreement.[20] If NATO were to increase its maritime presence in the Black Sea, Russia might feel the need to invest more heavily in its defense of Crimea and to redirect assets from elsewhere to the Black Sea Fleet. Indeed, Russia's semi-official *Pravda* news outlet ran a story in 2016 worrying that Turkey might be widening the Bosporus channel to allow an U.S. aircraft carrier into the Black Sea.[21] Russia also worries about its own access to the Mediterranean. During the 2015 rise in Turkish-Russian tensions after Turkey shot down a Russian fighter aircraft that strayed into Turkish airspace, the Russian news outlet *Sputnik* ran a story claiming that "Turkey has no legal, economic basis to close Bosporus for Russian ships."[22]

Alternatively, and perhaps more productively, the United States could support a buildup of longer-range air-launched and land-based anti-ship missiles on the territory of NATO Black Sea states. The U.S. Air Force and Navy currently have anti-ship missiles in their inventory that could be deployed to the region effectively. While the United States does not field land-based versions, a 2013 RAND study concluded that "land-based [anti-ship missiles] are readily available on the world's arms markets, inexpensive, and able to provide significant addi-

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[20] Cross, 2015, p. 165.

[21] "U.S. Sixth Navy Stirs Up Another Crisis in the Black Sea," *Pravda*, December 10, 2016.

[22] "Turkey Has No Legal, Economic Basis to Close Bosphorus for Russian Ships," 2015.

tional capabilities to U.S. forces."[23] In conjunction with NATO air assets in the region, such deployments could raise Russian apprehensions about the security of its naval base and, as a result, prompt greater investment in Crimean defense.

Potential Benefits

The principal benefit of strengthened NATO anti–access and area denial (A2AD) measures over the Black Sea would be to drive up the cost of defending Russian bases in Crimea and to lower the benefit to Russia of having seized this area.

Romania has expressed concern over the Russian buildup in the Black Sea and has tried to bolster its ties to NATO accordingly. Indeed, it has pushed for a Black Sea NATO brigade, as well as more maritime exercises in the region.[24] Ukraine arguably remains more focused on the land conflict in the east of its country, but it too has expressed concern about Black Sea security and offered to participate in a NATO-led task force there.[25] Similarly, Georgia would like to see increased NATO capabilities in the region. Lacking much of a navy, it offered NATO a base near the port of Poti.[26]

Risks

On a basic level, Russia would certainly regard an increase in NATO A2AD capabilities around the Black Sea as threatening and would mount a vigorous diplomatic and informational campaign to dissuade coastal NATO and non-NATO states from participating.

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[23] Terrence K. Kelly, Anthony Atler, Todd Nichols, and Lloyd Thrall, *Employing Land-Based Anti-Ship Missiles in the Western Pacific*, Santa Monica, Calif.: RAND Corporation, TR-1321-A, 2013.

[24] Daniel McLaughlin, "Romania Boosts NATO Role as Black Sea Tension Rises," *Irish Times*, December 14, 2016.

[25] "Ukraine and Romania Agree to Create NATO-Led Black Sea Fleet," UAWire, April 21, 2016.

[26] Joshua Kucera, "Georgia Offers NATO to Build a Black Sea Base at Poti," Eurasianet, March 9, 2017.

Any increased U.S. naval presence would also incur operational risk. With ranges of 400 to 500 km, Russian anti-ship missiles based in Crimea could reach most U.S. ships operating in the Black Sea.[27] Increasing presence also runs the risk of accidental confrontation. Historically, Russian aircraft have "buzzed," or flown close to, U.S. warships in the Black Sea.[28] With Russian and U.S. forces operating in such close proximity, there is a chance of one side mistaking a show of force for an actual use of force and sparking an international crisis, if not a war.

Finally, Russia also might respond to increased NATO naval deployments into the Black Sea by increasing its own presence in the Caribbean, notably Cuba and Venezuela—but it is probably even more expensive for Russia to operate there than it is for the United States to do so in the Black Sea.[29]

Likelihood of Success

Improving NATO's A2AD capabilities in the Black Sea will depend principally on the willingness of coastal states to brave Russian objections and accept the risks involved in the event of an actual conflict. Romania seems the most likely to respond positively to such an initiative. It is less clear how Turkey would respond, and Bulgaria is unlikely to participate. In June 2016, Bulgarian Prime Minister Boyko Borisov resisted the idea of Bulgaria joining a NATO maritime exercise, saying "I always say that I want the Black Sea to see sailboats, yachts, large boats with tourists and not become an arena of military action. . . . I do not need a war in the Black Sea."[30]

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[27] Steven Beardsley, "Russian Missiles Prompt Navy to Look at Ships' Close-In Defenses," *Stars & Stripes*, April 8, 2016.

[28] Ivan Watson and Sebastian Shukla, "Russian Fighter Jets 'Buzz' U.S. Warship in Black Sea, Photos Show," CNN.com, February 16, 2017.

[29] Franco Ordoñez, "Russia Considers Opening Military Base in Cuba," McClatchy DC Bureau, October 11, 2016.

[30] "Bulgaria Says Will Not Join Any NATO Black Sea Fleet After Russian Warning," Reuters, June 16, 2016.

It is more politically and logistically difficult for the U.S. Navy to operate in the Black Sea than it is for the Russian Navy to do so; it is also more dangerous in the event of a conflict. Therefore, an increased naval presence does not seem a promising competitive strategy.

Improving NATO's land-based A2AD capabilities over the Black Sea seem to be a more-promising approach. The effect would be to drive up Russian costs of defending its Crimean facilities and to lower the threat posed to neighboring countries.

Recommendations

The United States has an opportunity to entice Russia to expend additional resources in the maritime arena in a manner that balances likelihood of success with cost imposition (Table 7.2). Taking advantage of U.S. and allied submarine forces appears to be the most direct opportunity. Developing and maintaining the forces and technology required for ASW is expensive, and the level of effort scales effectively with the size of the area to be defended and the sophistication of the undersea threat. By threatening capabilities that Russia values, U.S. and allied submarine forces could encourage ASW investments. The United States could expand the number of SSN deployments into Russian operation areas, particularly Russia's SSBN bastions. These deployments can be supplemented by United Kingdom and French SSN deployments to the same operating areas.

Table 7.2
Findings for Maritime Measures

Measure	Benefits	Costs and Risks	Likelihood of Success
Increase U.S. and allied naval force posture and presence	Medium	Low	Medium
Increase naval R&D efforts	Medium	Medium	Medium
Shift nuclear posture toward SSBNs	Low	Low	Low
Check the Black Sea buildup	Medium	Medium	Medium

Similarly, stationing either air-launched or land-based ASCMs in Romania would likely increase the cost to Russia of its Crimean facilities at a tolerable cost to the United States and its allies.

The limiting factor for some of these maritime strategies is that Russia might choose not to compete. Blue-water navies are expensive, and Russia, as primarily a land power, might opt against investing the resources into fully challenging the United States for command of the sea.[31] Indeed, Russia is already outmatched in the maritime domain, so additional measures to push this gap might be less effective. Moreover, from the U.S. standpoint, maritime strategies have limited risks of escalation with Russia but could impose a significant opportunity cost if they result in the United States shifting limited assets to Europe away from the Pacific and China—a growing naval power.

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[31] According to CNA Russian naval expert Dimitry Gorenburg, many of the plans to rebuild the Russian Navy are likely to be "unfulfilled aspirational documents," and "the likelihood that Russia will retain its position as the world's most powerful navy after the United States until 2030 remains quite low." Simply put, the Navy will likely not be a procurement priority going forward. See Dmitry Gorenburg, "Russia's New and Unrealistic Naval Doctrine," *War on the Rocks*, July 26, 2017.

However, this is not a universal view, and some Russian naval experts actually see a slow but steady positive trend line. See, for example, Michael Kofman and Jeffrey Edmonds, "Why the Russian Navy Is More Capable Than It Appears," *The National Interest*, August 22, 2017.

CHAPTER EIGHT
Land and Multidomain Measures

This chapter explores the potential for extending Russia through greater U.S. and allied investments in land or multidomain systems. While NATO enjoys a large numerical advantage in land capabilities overall, relatively few of these forces are located near or quickly deployable to Russia's borders, giving Russia a sizable local advantage in this domain. Measures that erode this Russian advantage could prompt Russian responses and investments that could extend Russia further. Our analysis of multidomain systems covers a number of different topics, ranging from nuclear forces to new or emerging technologies. These systems are costly; if Russia could be forced to compete in these areas, it could cause a substantial drain on its resources. Several of these systems have the potential to threaten strategic stability between the United States and Russia, however, and should therefore be explored with caution.

We survey four main categories of land or multidomain policies for their ability to extend Russia. First, we explore whether an increased land force presence in Europe has the potential to extend Russia and whether its ability to do so might depend on its composition and location. This assessment follows extensive recent works from RAND and other analysts that argue for increasing land forces to enhance deterrence, particularly on NATO's eastern flank. Second, we investigate whether a large increase in the size and frequency of U.S. and NATO exercises in Europe might be able to extend Russia. Analysts have recently argued that a return to more-extensive and more-complex exercises last seen during the Cold War could both

enhance deterrence of Russia and increase U.S. and NATO capabilities to deploy forces more rapidly to vulnerable NATO members on its eastern flank. Third, we assess whether a U.S. withdrawal from the INF Treaty could be used as a way to extend Russia. The United States has declared that Russia is in violation of the INF Treaty, causing some analysts to question whether the United States itself might be better served by withdrawing from the treaty. Fourth, we survey the potential to extend Russia by investing in new or emerging weapon technologies, potentially combined with military deception activities. These technologies have the potential to undermine local Russian military advantages, such as its A2AD capabilities, which are vital to Russian national security. While these investments might be successful in extending Russia, the risk they could pose to strategic stability between the United States and Russia must also be weighed carefully.

Measure 1: Increase U.S. and NATO Land Forces in Europe

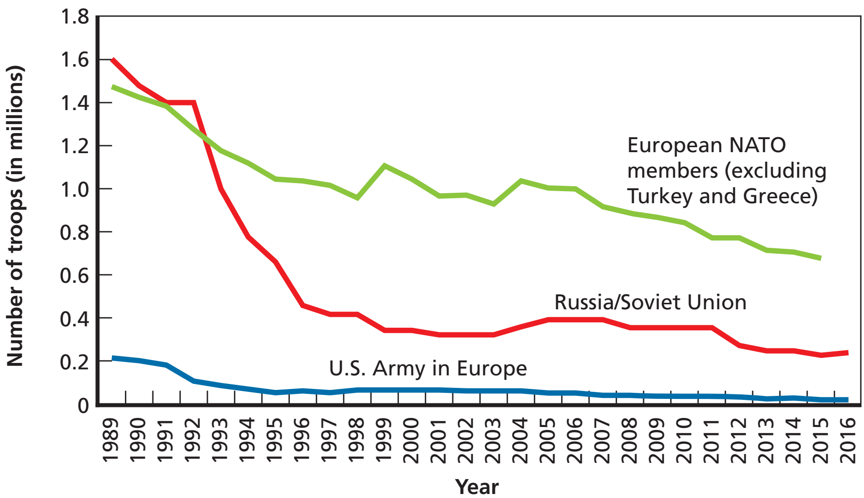
The United States has sharply decreased its land forces in Europe since the end of the Cold War. U.S. Army forces in Europe declined from more than 200,000 troops in 1989 to roughly 26,000 in 2016.[1] This was accompanied by a decline in capabilities. For example, the United States withdrew the last of its forward-stationed heavy armor from Europe in 2013.[2] Both European NATO members and Russia have seen dramatic declines in the size of their ground forces over this period, although the Russian declines have been more substantial. Despite their own declines, NATO ground forces in Europe have become much larger in comparison with Russia since the late 1980s, although the gap has remained roughly constant over the past decade (Figure 8.1).

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1 Defense Manpower Data Center, "Historical Reports—Military Only (aggregated data 1950–current)," Alexandria, Va.: U.S. Department of Defense, 2017.

2 "U.S. Announces New Tank and Artillery Deployment in Europe," 2015.

Figure 8.1
Active Component European NATO and Russian Army Troops, 1989–2016



SOURCE: International Institute for Strategic Studies (IISS), *The Military Balance 2017*, Vol. 117, No. 1, 2017; Defense Manpower Data Center, 2017.
NOTE: Comparisons of active component Army personnel. Does not account for peacekeeping commitments.

Because of difficulties in interoperability, command and control, and duplication of capabilities, aggregating troop numbers from disparate NATO allies tends to overstate each group's military strength compared with the forces of a single state. Nonetheless, Figure 8.1 does suggest that NATO's aggregate ground force size compared with Russia's does not appear to be the greatest concern for the Alliance. But there are three other interrelated factors that analysts say are cause for concern in the event of a short-warning conflict with Russia: the location of NATO forces, the readiness and capability levels of NATO forces in Europe, and the size and composition of U.S. forces in Europe. First, NATO ground forces are located primarily in the west and south of Europe, while the Alliance's security guarantees over the past two decades have been extended further eastward, in some cases up to the borders of Russia. In 2016, the six largest European NATO member armies were located well away from the Alliance's eastern flank, with only the seventh- and eighth-largest armies (belonging to

Germany and Poland, respectively) more proximately located.[3] Second, concerns regarding this geographic dispersion are exacerbated by the generally low state of readiness and capabilities of European NATO member ground forces. Even the most capable of the Western European NATO allies would struggle to generate a single heavy brigade for deployment to the Baltic region in less than a few weeks.[4] Third, while U.S. ground forces in Europe have typically been maintained at higher levels of readiness and capability, these forces have been reduced dramatically in the past decade. Even in 2006, U.S. Army troops in Europe exceeded 50,000; by 2016, the force had been drawn down to roughly half that number.[5] As already mentioned, forward-stationed U.S. heavy armor was withdrawn from the continent in 2013, although some armored forces have been rotating to NATO since January 2017. Besides the reduction in high-end capabilities that this withdrawal represents, smaller numbers of U.S. ground forces in Europe might also risk confusing adversaries regarding U.S. resolve to fight and win a conflict on the continent.

These factors have led several analysts to conclude that, in the event of a short-warning conflict with Russia in an Eastern European NATO member, rapidly deployable U.S. and NATO ground forces would be heavily outnumbered by their Russian counterparts despite NATO's aggregate size advantages.[6] Following the 2014 Wales and 2016 Warsaw summits, NATO has taken several limited steps to increase its presence in the Baltic region to reinforce deterrence and mitigate the risk that Russia might contemplate starting such a conflict. Estonia, Latvia, Lithuania, and Poland are each currently hosting a persistent rotational deployment of a multinational light battalion, led by the United Kingdom, Canada, Germany, and the United States,

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[3] The six largest armies belonged to France, Greece, Italy, Spain, Turkey, and the United Kingdom. See IISS, 2017.

[4] Michael Shurkin, *The Abilities of the British, French, and German Armies to Generate and Sustain Armored Brigades in the Baltics*, Santa Monica, Calif.: RAND Corporation, RR-1629-A, 2017.

[5] Defense Manpower Data Center, 2017.

[6] Shlapak and Johnson, 2016.

respectively.[7] In addition, the United States has returned an armored brigade combat team (ABCT) to Europe on a rotational basis: Centered in Poland, it will deploy smaller elements to other eastern-flank members of NATO, including the Baltic States.[8] The United States has also prepositioned equipment for an additional ABCT, enablers, and a division headquarters.[9]

Despite these steps, more can certainly be done to increase the effective capabilities of NATO ground forces. The primary goal of further efforts in this regard would likely be to further enhance deterrence and reassure states of the Alliance's ability to implement the NATO Article V security guarantee. Assessing how many forces are required to deter potential Russian aggression against NATO members—and under what circumstances—is a complex question, and a full analysis lies outside the scope of this report.[10]

Beyond their deterrent value, further increases in NATO ground force capabilities could also be used as a way to extend Russia. When the deployment of NATO composite battalions to each of the Baltic States and Poland was agreed upon in the lead-up to the 2016 Warsaw Summit, Russia announced that its intended response would be to increase its forces dramatically in its Western and Southern Military Districts, although the bulk of this increase was to come from reorganization and posture changes of existing forces.[11] This would represent

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7 Paul Belkin, *NATO's Warsaw Summit: In Brief*, Washington, D.C.: Congressional Research Service, R44550, November 14, 2016, pp. 3–4.

8 Jacob McDonald, "Tanks Arrive in Germany to Begin Armor Rotations," United States European Command, January 12, 2017.

9 Belkin, 2016, p. 10.

10 For a framework outlining the factors that would need to be accounted for in such an analysis, see Bryan Frederick, Matthew Povlock, Stephen Watts, Miranda Priebe, and Edward Geist, *Assessing Russian Reactions to U.S. and NATO Posture Enhancements*, Santa Monica, Calif.: RAND Corporation, RR-1879-AF, 2017.

11 Specifically, Russia announced its intention to form two new armies and three new mechanized divisions in these districts, although most of the forces involved would be drawn from existing units. See Marek Menkiszak and Piotr Żochowski, "Russia's Reaction to the NATO Summit in Warsaw," Ośrodek Studiów Wschodnich (Centre for Eastern Studies), July 13, 2016.

a substantial reaction to four forward-postured NATO light battalions; in reality, these Russian forces and the bases being constructed to support them appear to be positioned around the borders of Ukraine and not near NATO members, such as the Baltic States.[12] Although Russia was clearly concerned about the political and signaling effects of the deployments coming from the Warsaw Summit, these small NATO forces do not appear to have affected Russia's overall military investments. The Russian defense budget declined modestly in 2017,[13] and the higher priority given to other systems seemingly would limit Russian ability to continue to invest in the modernization of its ground forces.[14]

The following section will assess the potential benefits and risks of implementing three illustrative options for a substantial increase in NATO ground force capabilities. These options are not mutually exclusive and could be implemented together either in whole or in part, but their benefits and risks are more easily explored in isolation. They are intended to illustrate the types of options available to the United States and NATO for increasing their ground capabilities in Europe but not to identify specific force packages that might be most useful from an operational perspective.

The first option would involve substantial increases in U.S. ground forces in Europe, including heavy forces and fires, back up to at least the levels of a decade ago.[15] The U.S. Army currently has three brigade combat teams (BCTs) in Europe: two forward-stationed (one

[12] Michael Kofman, "The ABCs of Russian Military Power: A Primer for the New Administration," *The National Interest*, February 2, 2017a.

[13] Craig Caffrey, "Russia Adjusts Defence Spending Upward," *Janes Defence Weekly*, March 21, 2018.

[14] Kofman, 2017a; Michael Kofman "Reports of Deep Cuts to Russia's Defense Budget Have Been Grossly Exaggerated," *World Politics Review*, March 22, 2017b; Mark Galeotti, "The Truth About Russia's Defence Budget," European Council on Foreign Relations, March 24, 2017a.

[15] A return to Cold War force levels such that the U.S. Army in Europe alone would become roughly comparable in size to the current Russian Army, not to mention vastly more capable, seems both unnecessary for any plausible deterrent purpose and highly unrealistic from an economic and strategic perspective.

Stryker and one Infantry/Airborne) and one rotational (armored). For illustrative purposes, this option could represent a rough doubling of U.S. Army forces in Europe, up to six permanent or persistently rotated BCTs, at least two of them armored, and substantially greater artillery and counterfires elements. It might also involve the prepositioning of additional equipment for yet more forces to flow into the region from the United States more quickly. The costs involved would depend in part on whether the additional units were permanently stationed in Europe or persistently rotated from the United States, as well as which units being rotated were heavy and which were light. A rough estimate would suggest that, if these three additional BCTs are drawn from existing units, the annual cost would likely be on the order of $1 billion more than FY 2017 levels, with additional costs for base construction or renovation on top of that, depending on the locations selected.[16] If the units deployed to Europe were newly formed, the costs, including new equipment, would be substantially higher.[17] The United States could also face opportunity costs if existing units, currently assumed to be stationed in the United States, were relocated to Europe. If these troops were deployed continuously to such countries as Estonia or Latvia, subsequent removal to deal with contingencies elsewhere could be interpreted locally as a weakening of U.S. commitment. This concern might be lessened if the units were deployed to Germany or other locations in Western

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[16] This rough calculation assumes one additional persistent-rotational BCT costing $637 million annually and two additional BCTs permanently stationed in Europe at $360 million annually. The cost estimates are based on the studies and the historical experience of ABCTs. The one light BCT assumed to be deployed in this scenario would be somewhat cheaper because of lower equipment costs. It would likely be more cost-effective to permanently station the ABCTs and persistently rotate the light brigade if policymakers were to select that mix of forces. For details on these individual estimates, see Kathleen H. Hicks, Heather A. Conley, Lisa Sawyer Samp, Anthony Bell, Jeffrey Rathke, and John O'Grady, *Evaluating Future U.S. Army Force Posture in Europe: Phase II Report*, Washington, D.C.: Center for Strategic and International Studies, June 2016, pp. 60–61.

[17] Currently planned increases in U.S. Army funding to pay for modernization of ABCT equipment sets make the option of needing to field entirely new ABCTs for this purpose less likely. See Jen Judson, "US Army's 2018 Budget Request Stockpiles Munitions, Modernizes Armored Brigades," *Defense News*, May 18, 2017.

Europe, or did not always rotate to the same country, which could avoid creating local expectations of permanent presence.

The second option would involve substantial increases in spending by European NATO members to improve the readiness and capabilities of their military forces. As shown in Figure 8.1, even though they have continued to see reductions in recent years, European NATO member ground forces remain substantial in size, at least on paper. Their lack of ability to deploy in a short-warning conflict scenario stems from very low levels of readiness and from equipment shortages, both symptoms of persistent underinvestment and more than a decade of no perceived Russian threat.[18] The solution, in broad terms, is to spend more money. Some increases in end strength might be necessary to allow for a larger number of forces to remain at a heightened state of readiness, but procurement, training, and maintenance appear to be the most-pressing needs for most states.[19] Ideally, this money would come from the taxpayers of the countries themselves, and there are signs that investments in defense have slowly started to increase again among key European NATO members.[20] In this option, we will assume for illustrative purposes that all of the larger and more militarily capable states in NATO increase their

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[18] Shurkin, 2017.

[19] Georg Löfflman, "Pulling Germany's Military Back from the Brink," *The National Interest*, September 16, 2015; Gregory Viscusi, "French Military Overstretched as Hollande Pushes Active Role," Bloomberg News, January 21, 2016; Sam Jones, "Britain's 'Withered' Forces Not Fit to Repel All-Out Attack," *Financial Times*, September 16, 2016; Natalia Kopytnik, "EAA Report Casts Doubt on Polish Military Readiness," *Warsaw Business Journal*, June 16, 2015.

[20] "Germany Says Boosting Defense Spending, Demands Clear U.S. Agenda," Reuters, January 18, 2017. The ability of U.S. policymakers to bring about an increase in the defense spending of European NATO members has historically proven to be limited. While there are signs that the potential threat posed by Russia might be shifting the calculations of some members, it should be noted that this option is not entirely within the ability of U.S. policymakers to achieve. One option for U.S. policymakers that would be more politically difficult would be to provide some of the needed additional money or targeted equipment in the form of U.S. military assistance, though such funding has not recently been available to large, wealthy countries that have simply chosen not to spend more on defense. The sums involved would be substantial. Taking German defense spending alone from 1.2 percent of GDP to 2 percent of GDP (of a $3.6 trillion economy) would involve an additional $27 billion per year.

defense spending much more rapidly, such that even such countries as Germany (currently spending about 1.2 percent of GDP) are spending the targeted 2 percent of GDP within the next few years.[21] Increasing capabilities in smaller, frontline NATO members, such as Estonia, Latvia, and Lithuania, would also be highly welcome for the purposes of deterrence. But given their population sizes, it is unlikely that their capabilities could be increased to an extent that they would prompt Russia to materially extend itself in response. Relatedly, the common budget for the NATO Security Investment Program, funded through country contributions proportionate to their GDP, could also be substantially increased.[22] This would allow for larger, primarily European contributions to fund more-extensive construction of infrastructure in eastern-flank members of the Alliance; in turn, that would provide the capability of those members to receive additional NATO forces rapidly in a crisis.

The third option would involve the deployment of much greater numbers of either U.S. or Western European NATO member forces directly in either the Baltic States or Poland.[23] NATO's Enhanced Forward Presence initiative has already led to the rotational deployment of multinational battalions to Estonia, Latvia, Lithuania, and Poland, but this option considers forces of much greater scale and effective combat power.[24] For illustrative purposes, this could involve the forward-stationing of one or more BCTs or equivalents in each of the Baltic

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[21] "Germany Says Boosting Defense Spending, Demands Clear U.S. Agenda," 2017.

[22] Contributions to the NATO Security Investment Program budget were 690 million euros in 2016, with the U.S. share roughly 22 percent of that total. The GDP-based cost-sharing formula for the program ensures robust European support for vital infrastructure spending. Further increases in program funding could retain the same proportional formula. See John Aguirre, "Management of NATO's Common-Funded Resources," presentation slides, Garmisch, Germany: North Atlantic Treaty Organization, March 2016; Military Construction Program, "FY2017 Budget: North Atlantic Treaty Organization Security Investment Program," Washington, D.C.: U.S. Department of Defense, February 2016.

[23] The NATO-Russia Founding Act of 1997 is currently interpreted by most NATO members as preventing the permanent stationing of large NATO forces in eastern-flank members of the Alliance, but these forces could alternately be permanently or rotationally deployed. See NATO, "NATO-Russia Relations: The Facts," February 28, 2018.

[24] NATO, "NATO's Enhanced Forward Presence," Brussels, fact sheet, May 2017a.

States, with even larger forces involving several U.S. or European BCTs, including heavy forces and fires, stationed in Poland. Stationing this size force in this location would aim to proportionately mirror NATO presence in West Germany during the Cold War, although at much lower total force levels and this time much nearer the Russian border.[25] Two additional differences from the Cold War context are worth highlighting. First, this option will be assumed not to include the stationing of nuclear weapons on the territory of these states, although that possibility is explored elsewhere in this chapter. Second, forward-stationing forces of this size in the Baltic States or Poland would, from the perspective of Russia and at least some European NATO members, appear to violate the 1997 NATO Russia Founding Act. The key sentence in the Act reads,

> NATO reiterates that in the current and foreseeable security environment, the Alliance will carry out its collective defence and other missions by ensuring the necessary interoperability, integration, and capability for reinforcement rather than by additional permanent stationing of substantial combat forces.[26]

Some analysts have argued that the phrase "in the current and foreseeable security environment" clearly does not encompass the changes in the European strategic situation since the Russian invasion of Ukraine. But this argument has not been persuasive to all NATO members, most notably Germany.[27] The current NATO battalion-sized forces deployed to the Baltic States and Poland are deployed rotationally, rather than permanently, partly for this reason. At larger force

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[25] This option is intentionally designed to include a large force in order to illustrate more clearly the potential to extend Russia in this manner. If deterrence, rather than extension, of Russia is the goal, then fewer forces would likely be sufficient.

[26] NATO, "Founding Act on Mutual Relations, Cooperation, and Security Between NATO and the Russian Federation Signed in Paris, France," October 12, 2009.

[27] Vanessa Gera, "Polish and Baltic Hopes for Permanent NATO Bases Frustrated by 1997 Agreement with Russia," Associated Press, September 4, 2014; Luke Coffey and Daniel Kochis, "The 1997 NATO–Russia Founding Act Does Not Prohibit Permanent NATO Bases in Eastern Europe," Washington, D.C.: Heritage Foundation, April 29, 2016.

sizes, however, permanently stationed forces might be the more viable option, and the larger forces discussed here will be assumed to be deployed in this manner (i.e., forward-stationed).

The Baltic States have indicated a strong willingness to pay host-nation support costs for additional U.S. troops that could be forward-stationed in their territory, but these states might have only limited ability to fully defray these costs for larger deployments without taking away from their own defense budgets.[28] Forward-stationing multiple brigades in states that have not previously hosted them would therefore likely involve substantial additional costs to build needed bases and infrastructure. The option of deploying these forces in the Baltic States and Poland could be executed separately or together with either of the first two options for increasing aggregate NATO ground capabilities in Europe.

For each of these three options, we next explore potential benefits, including the ability to extend Russia and enhance deterrence, as well as potential risks, including inefficient use of resources and the potential to provoke an undesired Russian reaction.

Potential Benefits and Risks

The potential benefits of increasing NATO land forces in Europe or increasing their effective capabilities would be threefold. First, these strategies could decrease the likelihood that Russia would contemplate a short-warning attack on a NATO member by (1) signaling Alliance resolve to fight and (2) increasing NATO capabilities to win that fight. The benefits for deterrence that these increased land forces would provide depend on the likelihood that Russia would contemplate such an attack in their absence. A full analysis of this question would need to consider the current balance of forces in Europe (heavily weighted toward NATO in aggregate but locally weighted toward Russia in states immediately on its borders), the broader costs Russia would

[28] Hicks et al., 2016, p. 54; Michael J. Lostumbo, Michael J. McNerney, Eric Peltz, Derek Eaton, David R. Frelinger, Victoria A. Greenfield, John Halliday, Patrick Mills, Bruce R. Nardulli, Stacie L. Pettyjohn, Jerry M. Sollinger, and Stephen M. Worman, *Overseas Basing of U.S. Military Forces: An Assessment of Relative Costs and Strategic Benefits*, Santa Monica, Calif.: RAND Corporation, RR-201-OSD, 2013.

expect to pay as a result of such an attack, and how such an attack would serve Russian strategic and political objectives, both international and domestic.

Second, increasing the size, capabilities, and readiness of NATO ground forces in Europe could help support a wider range of operations in other regions. Ground forces in Europe could be deployed to contingencies in the Middle East or North Africa more quickly than units stationed in the United States, particularly if kept at higher states of readiness. Increases in the numbers and capabilities of rapidly deployable European ground forces could allow for those states to take a more active role in securing their immediate neighborhood; such increases could also allow for more joint U.S. and European responses to crises, improving interoperability and possibly encouraging greater policy cohesion.

Third, increasing NATO land force capabilities could extend Russia by encouraging Moscow to invest more heavily to counter that potential threat or to maintain its advantage on the border and ensure continued freedom of action. However, not all types of additional NATO ground capabilities are likely to prompt Russia to shift resources. For example, simply increasing the size of aggregate NATO ground forces likely would not prompt Moscow to spend more on countermeasures. Over the past two decades, NATO has maintained a substantial edge in the overall size of its ground forces in Europe. Russian defense investments over the same period—many of them made in difficult budget environments—have focused primarily on maintaining strategic nuclear forces and air defense and missile capabilities.[29] While NATO ground force levels have declined in recent years, returning them to aggregate levels last seen ten years ago seems unlikely to prompt Russia to dramatically change its investments; Russia appears to have identified other NATO capabilities as more worrisome.

However, NATO ground forces that are located near or on Russia's borders or that are maintained in substantial numbers at much higher readiness levels could well prompt a different reaction. Deployment of several high-readiness BCTs to eastern-flank members of NATO

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29 Kofman, 2017a.

is unlikely to convince Moscow that NATO might be contemplating a full-scale ground invasion of Russia, but this would still be a highly threatening development from the Russian perspective. Such forces would not realistically threaten Moscow, but they could hold Kaliningrad at risk, particularly if accompanied by capabilities designed to counter Russian artillery advantages over NATO units in theater, such as multiple launch rocket systems (MLRS) or high-mobility artillery rocket systems. These units could also be deployed more readily in other locations throughout the region that are highly sensitive to Russia, such as Ukraine or Georgia. Moreover, the units would pose a clear political challenge to a regime that has staked its domestic popularity on the reassertion of Russia's role as a great power, including its primacy within its self-declared near abroad. If forces in the Baltics or Poland were primarily from the United States, rather than from Western European NATO members, the perceived threat and political challenge are likely to be magnified.

Possible Russian responses to such deployments on its borders could vary widely, though all would likely involve substantial resources. Russia would almost certainly announce domestic posture changes, as it did preceding the Warsaw Summit in 2016, but it is likely that these force changes would be postured against NATO rather than Ukraine. Changes could involve new base construction near the borders of the Baltic States or increased size and capabilities of Russian ground forces. However, if Russia were to identify increased NATO ground capabilities as merely a symptom of a more aggressive NATO intent overall, it might assume that the greatest threat it faces from NATO remains in the air and further increase its capabilities in air defense and missile systems to compensate. Either way, the end result would likely be an increase in Russian military spending.

The risks that would accompany a general increase in NATO ground force capabilities in Europe—including a narrowing of European NATO member readiness gaps and an increasing need for U.S. forces stationed in traditional locations in Western Europe—are likely to be limited. For the most part, such force levels were in place a decade or more ago and were not associated with adverse Russian reactions. Even though relations between NATO and Russia have deteriorated

sharply since that time, a stronger and more capable NATO ground force that remains centered in Western Europe likely would not be perceived as a political or military challenge to vital Russian concerns.

The risks are more substantial when considering a dramatically larger high-readiness ground force that is centered closer to or on Russia's borders. As noted earlier, such a force would have the potential to extend Russian military spending precisely because it would represent a clear challenge to Russian interests politically—and, possibly, strategically—in such places as Ukraine, Belarus, and Georgia. Russia could consider enhanced forward posture part of an overall NATO effort to contest its near abroad, encouraging such countries as Ukraine to take a harder line against Moscow and offering rhetorical, and possibly material, support to other countries considering shifting their strategic orientations toward Europe. Such shifts would threaten Russian regime security by moving key states out of its strategic orbit and by demonstrating the potential for states in the region to undertake political and economic reforms inimical to the current regime in Moscow. By representing a potential threat to these core Russian interests, the deployment of such forces would create an incentive for Russia to push back forcefully in an attempt to deter the United States and NATO from undertaking these deployments—or, failing that, to push for reversal of the deployments after they are in place. This pushback could take several forms, including but not limited to the following:

- greater efforts to destabilize the NATO members hosting the deployments, including mobilization of local opposition to the deployments themselves
- horizontal escalation to threaten U.S. or European interests in other regions, such as the Middle East
- placement of strategic forces on heightened alert, emphasizing that the deployments themselves constitute an acute crisis in relations
- a breakout from the INF Treaty and the deployment of nuclear-armed intermediate-range missiles
- heightened attempts to destabilize Western political systems.

A deployment of primarily ground forces to Eastern Europe, even if substantial in size, would not by itself threaten Russian regime security or command and control systems. However, if such a deployment were accompanied by the strengthening of other capabilities, such as more-robust missile defense systems or NATO intermediate-range missiles, a more precipitous Russian response could occur if these things together were perceived as a signal that NATO was contemplating a direct attack on Russia. The potentially escalatory effect of missiles that directly threaten Russian command and control systems is covered elsewhere in this report.

Likelihood of Success

To the extent that enhanced NATO ground forces remain centered in Western Europe, they can likely be increased substantially and provide multiple benefits, including enhanced deterrence and greater capabilities for contingency operations in nearby regions, with relatively low risk. The United States would likely face fewer political obstacles to increasing its own forces in Western European countries. Incentivizing large increases in European NATO member defense spending would likely prove much more difficult, but even relatively modest increases by members with large economies, such as Germany, could have a substantial effect over time. However, ground forces postured primarily in Western Europe also seem unlikely to notably extend Russia.

Alternatively, the United States or larger European NATO members could increase their ground forces substantially in eastern-flank members of NATO, perhaps declaring the 1977 NATO Russia Founding Act null and void by reason of Russia's annexation of Crimea and invasion of Eastern Ukraine. Estonia, Latvia, Lithuania, and Poland have shown great enthusiasm for hosting other NATO forces (particularly U.S. forces), although new deployments in those countries might still result in increased costs over established bases in Western Europe. Some Western European NATO members, notably Germany, might have reservations about deploying larger concentrations of their own forces so close to the Russian border—or even supporting the permanent stationing of large forces of other states because doing so would

violate their interpretations of the NATO Russia Founding Act, which they might be reluctant to abandon.

Such deployments, particularly of U.S. forces, would nonetheless have the potential to extend Russia by increasing Moscow's perceptions of threats and by incentivizing greater Russian military spending. However, large-scale deployments on Russia's borders would also increase the risk of conflict, particularly if these deployments were perceived as challenging Russia's self-proclaimed role in such neighboring states as Ukraine, Belarus, and Georgia. Forces deployed in the Baltic States would also risk being overwhelmed by a concerted Russian attack before relief could arrive. It is not clear that extending Russia in this manner, at the price of heightened instability in the broader strategic relationship between Russia and NATO, would be of net benefit to the United States. Indeed, provided that they are successful in enhancing deterrence, more NATO ground forces in Europe would arguably be used to better effect by decreasing tensions and perceptions of threat on both sides than by extending Russia into a conventional arms race.

Measure 2: Increase NATO Exercises in Europe

NATO last conducted large-scale military exercises in Europe near the end of the Cold War. The largest of these exercises, the annual Return of Forces to Germany (REFORGER) exercise, demonstrated a U.S. ability and willingness to mobilize and deploy substantial forces to Western Europe and to operate closely together with sizable forces from NATO allies. REFORGER exercises were designed to practice and refine the U.S. strategy of providing ten divisions to NATO within ten days with some amount of clear indications and warning. REFORGER exercises reached a peak size of roughly 115,000 troops in the late 1980s, including the use of hundreds of main battle tanks, and practiced responding to a Soviet invasion of West Germany.[30] At their

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[30] J. David Lashlee and James H. Robinson, "Tactical Mobility Modeling for REFORGER 87," *Photogrammetric Engineering and Remote Sensing*, Vol. 58, No. 8, August 1992, p. 1223.

peak, the exercises cost in excess of $100 million and caused damage to private property in the areas of West Germany where the exercises took place that amounted to additional millions of dollars.[31] Following the end of the Cold War, the value attached to these exercises declined rapidly, and the last, much smaller REFORGER exercise was held in 1993.[32] Since then, no NATO exercises on such a scale have occurred on the continent. In 2013, the largest NATO exercise was Steadfast Jazz, which included roughly 6,000 personnel and was the largest NATO exercise to have occurred in several years.[33]

Since the Russian invasion of Ukraine in 2014, the United States and NATO have begun to conduct larger exercises in Europe on a more frequent basis. In 2015, Trident Juncture involved 36,000 personnel operating across Italy, Spain, and Portugal.[34] In 2016, the Polish-led Anakonda exercise involved 31,000 troops, including roughly 14,000 U.S. troops, and demonstrated the interoperability of conventional capabilities among 24 countries.[35] That same year, NATO and NATO member states conducted roughly 240 exercises of various sizes.[36] While this increase in activity marks a clear reversal of the

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31 Michael R. Gordon, "U.S. War Game in West Germany to Be Cut Back," *New York Times*, December 14, 1989; U.S. General Accounting Office, *Computer Simulations Can Improve Command Training in Large-Scale Exercises*, Washington, D.C., Report to the Chairman, Subcommittee on Readiness, Committee on Armed Services, House of Representatives, GAO/NSIAD-91-67, January 1991, p. 34.

32 Anne Applebaum, "NATO's Next Mission," *Washington Post*, November 23, 2010; Patrick D. Allen, *Simulation Support of Large-Scale Exercises: A REFORGER Case Study*, Santa Monica, Calif.: RAND Corporation, R-4156-A, 1992, pp. 2–3.

33 NATO, "NATO's Steadfast Jazz Exercise Gets Underway," November 2, 2013; Ian J. Brzezinski and Nicholas Varangis, "The NATO-Russia Exercise Gap," Atlantic Council, February 23, 2015. It should be noted that the United Kingdom–hosted exercise Joint Warrior was roughly twice the size of Steadfast Jazz, although still far smaller in scale than the major Cold War exercises.

34 NATO, "Trident Juncture Shows NATO Capabilities 'Are Real and Ready,'" November 4, 2015.

35 Alex Duval Smith, "NATO Countries Begin Largest War Game in Eastern Europe Since Cold War," *The Guardian*, June 6, 2016.

36 NATO, "Key NATO & Allied Exercises," Brussels, fact sheet, July 2016a.

post–Cold War trend, the size of these exercises remains well below Cold War levels and below comparable Russian activities.

Russia has dramatically increased the scale of its military exercises over the past decade. In 2009, the Zapad-2009 exercise, the largest Russian exercise since the dissolution of the Soviet Union, involved roughly 12,500 troops.[37] By 2014, however, Russia executed the Vostok-2014 exercise, involving some 155,000 personnel.[38] In these and other recent exercises, Russian forces practiced mobilization and high-end combat, including the integration of nuclear weapon forces.[39] In addition, Russia conducts sizable "snap" exercises, sometimes involving up to 50,000 troops, executed with little or no advance warning.[40] These exercises are perhaps of most concern to NATO because, in a crisis, they might be difficult to distinguish from preparations for an actual Russian attack.[41] While advance notification of such exercises was required under the CFE Treaty, Russia suspended its participation in the treaty in 2007.[42] NATO followed suit in 2011 by suspending many of its obligations, leaving both sides without the greater reassurances and stability that the notification and inspection regime outlined in the CFE Treaty was intended to provide.[43]

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[37] Johan Norberg, *Training to Fight: Russia's Major Military Exercises 2011–2014*, Stockholm: Swedish Defence Research Agency (FOI), December 2015, p. 11.

[38] Norberg, 2015, p. 12.

[39] Norberg, 2015, pp. 33, 42, 61.

[40] Ian J. Brzezinski and Nicholas Varangis, "The NATO-Russia Exercise Gap . . . Then, Now, & 2017," Atlantic Council, October 25, 2016.

[41] Keir Giles, *Russia's 'New' Tools for Confronting the West: Continuity and Innovation in Moscow's Exercise of Power*, London: Chatham House, March 2016, p. 68.

[42] A replacement for the CFE Treaty (about which Russia is enthusiastic) was negotiated in 1999, but NATO members have refused to ratify it until Russia withdraws its troops from frozen conflict zones in Moldova and Georgia. See Richard Weitz, "Global Insights: As NATO and Russia Argue, CFE Treaty Gathers Dust," *World Politics Review*, July 30, 2013.

[43] Mika Hayashi, "Suspension of Certain Obligations of the CFE Treaty by NATO Allies: Examination of the Response to the 2007 Unilateral Treaty Suspension by Russia," *Journal of Conflict and Security Law*, Vol. 18, No. 1, 2013, pp. 133–134.

Several analysts have called for the United States and NATO to resume exercises in Europe that are much more robust.[44] These exercises could help signal a strong U.S. and NATO commitment to the defense of eastern-flank members of NATO and achieve such practical benefits as shortening mobilization and deployment times for units either not kept at a high state of readiness or not stationed in Europe. By strengthening NATO's ability and credibility to use force to protect its members in Eastern Europe, larger-scale exercises could also extend Russia by encouraging Moscow to increase the size of its own exercises, shift its domestic posture (including the construction of new basing facilities), and increase military spending and investments in ways that would help it to counter the capabilities that NATO is exercising.

Next, we assess the possible benefits and risks of a return to larger NATO exercises in Europe. While NATO could choose to conduct any number of different exercises to practice or demonstrate different capabilities, there are at least four important characteristics of these exercises that could reasonably vary and affect the benefits and risks involved.

First, larger NATO exercises could be conducted with larger or smaller numbers of U.S. troops deployed to Europe for the occasion. Large numbers of troops—for illustrative purposes, roughly a division—deployed from the United States specifically for the exercises would resemble the Cold War REFORGER experience and help the United States demonstrate and streamline its ability to deploy forces to Europe more rapidly. It would also be quite costly and, depending on the size, could strain the overall force or limit its availability for other contingencies, at least at current readiness levels. Transport costs alone for the 17,000 troops attending REFORGER 1988 from the United States were roughly $39 million, not adjusted for inflation.[45] Costs for U.S. participation in a future large-scale NATO exercise would vary widely, depending on whether the equipment

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[44] Hicks et al., 2016, p. 41; Brzezinski and Varangis, 2015; Robert Bateman, "America's Show of Force Towards Russia Has Changed. Here's How," *Esquire*, January 10, 2017.

[45] U.S. General Accounting Office, 1991, pp. 17, 34.

that U.S. troops would use was already present in Europe or would have to be shipped from the United States. The former option would be cheaper; the latter would provide more benefits for testing the logistics requirements for further rapid deployments in a crisis. The United States could also substantially increase the forces it permanently deploys to Germany, then employ those forces in regular exercises elsewhere in Europe.

Second, larger NATO exercises could involve the mass mobilization of European reserve forces or active forces generally kept at lower states of readiness. For example, Estonia mobilized virtually its entire reserve component of 13,000 troops for the Siil (Hedgehog) exercise in 2015.[46] The exercise, conducted with U.S. and other NATO forces, demonstrated Estonia's ability and willingness to mobilize its reserve forces and, despite Estonia's small population size, led to one of the larger NATO member exercises in Europe in recent years. Exercises that involved a similar intensity of effort from Poland or Germany could generate large numbers of forces and demonstrate a greater political commitment by those countries to NATO collective security than Russia might currently perceive.

Third, larger NATO exercises could be conducted in a range of different locations: the Baltic States, Poland, Romania, or Western Europe. Planners must consider logistical and operational factors in choosing where to conduct exercises. While infrastructure and transportation links are generally more developed in Western Europe, the region is also more crowded than the Baltic States that are less densely populated and offer more room, and more open airspace, for military maneuvers. If an exercise focused on the large-scale mobilization of forces from a particular country (such as Poland or Germany), it would be logical for the exercise to be conducted in or near that country. Beyond these pragmatic concerns, however, the location chosen for the exercise can also be used to send a signal to Russia. A large-scale exercise conducted in Latvia is likely to send a different signal of resolve (and potentially, of threat) than one con-

[46] Sam Jones, "Thousands Take Part in Estonia's War Games," *Financial Times*, May 13, 2015.

ducted in Germany or the Mediterranean (the location of Trident Juncture in 2015). Exercises in Poland or Romania are likely to constitute a middle ground in this regard.

Fourth, larger NATO exercises could demonstrate a range of different military activities and capabilities. These exercises could vary in the extent to which they practice achieving different operational objectives, including those that are both defensive and offensive in nature. They could also integrate nuclear capabilities into their design and planning. Different exercised capabilities could send sharply different signals to Russia regarding the types of activities that NATO anticipates its forces would conduct in the event of a conflict in Europe.

Potential Benefits and Risks

Larger and more-frequent NATO exercises in Europe could help to increase Russian perceptions of the ability and resolve of the Alliance to defend its eastern-flank members. As discussed earlier in this chapter, while NATO retains a sizable advantage in overall military capabilities, relatively few of its forces are located in the Alliance members on Russia's borders, such as the Baltic States and Poland. Furthermore, NATO's ability to mobilize and deploy additional follow-on forces rapidly during a crisis is currently quite limited. While NATO could address these disadvantages by shifting its posture or increasing the capabilities of its eastern-flank members, as already noted, it could also address them by increasing the Alliance's ability to deploy existing forces into the region more rapidly. Large-scale military exercises that practice precisely such deployments could help improve this capability.

The participation of large numbers of U.S. troops stationed outside Europe, particularly heavier forces, would be helpful in this regard if their regular participation could build and demonstrate a capability for rapid mobilization and deployment, on the order of several weeks. A similar effect could be achieved by substantially increasing permanently stationed U.S. forces in Germany and maintaining these forces at a high level of readiness and availability for participation in NATO exercises. Successful mobilization of large numbers of European NATO member forces for participation in exercises would

be an especially important indicator of the capability of such countries as Germany or Poland, given the improvement this would represent over current readiness levels. Holding such exercises in the Baltic States or Poland would likely provide the clearest evidence to Russia of NATO's ability to defend those countries, although exercises held elsewhere in Europe combined with sufficient transportation and infrastructure improvements in eastern-flank members might produce a similar effect.

Large-scale NATO exercises in Europe would also send a strong signal of Alliance commitment and resolve to uphold Article V. Military exercises are costly and time-consuming to plan and execute; therefore, they serve to demonstrate participating countries' commitment to the defense of the host countries. Given NATO's overall conventional superiority, any attack on an Alliance member is likely to be driven at least in part by an adversary's questions regarding the resolve of Alliance members to incur substantial costs in defense of other members. By proactively and regularly incurring financial and political costs, large-scale military exercises can help to reduce or eliminate doubt regarding whether NATO's collective security guarantees would hold, in turn strengthening deterrence.

Extensive U.S. participation in such exercises is likely a requirement for these exercises to be seen as credible because many high-end Alliance capabilities, including nuclear forces, reside largely with the United States. However, the greatest shift in Russian perceptions of NATO commitment could likely be achieved with robust European participation. German willingness to mobilize and respond to an attack on a NATO member, for example, is likely more in doubt than the willingness of the United States.[47] A demonstrated commitment to participate in NATO exercises on a much larger scale by countries with large potential ground capabilities—such as Germany, France, Italy, the United Kingdom, and Poland—could have a dramatic effect

[47] In a spring 2017 survey, 53 percent of Germans said that Germany should not use military force to defend a NATO ally that became involved in a serious military confrontation with Russia. The U.S. figure, by contrast, was 31 percent. Bruce Stokes, "NATO's Image Improves on Both Sides of Atlantic," Pew Research Center, Global Attitudes and Trends, May 23, 2017.

on Russian perceptions of the advisability of starting a conflict with NATO, even under conditions of Russia's own choosing. The location of the exercises could also enhance Alliance credibility. Exercises conducted in the Baltic States or Poland would most clearly signal Alliance commitment to defending those states. Exercises held elsewhere, such as Western or Southern Europe, would likely send a weaker signal of commitment to NATO's eastern-flank members but could still have value, depending on the size and capabilities of the exercises. Exercises that most realistically simulate defense against a Russian attack would likely demonstrate greater commitment to collective defense than those focused on logistics, counterinsurgency, or other NATO capabilities that could be utilized in different contexts.

While the primary benefit of returning to large-scale exercises in Europe would likely be to enhance NATO deterrence, it is possible that such exercises could be used to extend Russia as well. Larger NATO exercises, particularly if conducted near Russia's borders, would represent a political challenge to Russia and likely prompt a response. While Russia already conducts regular, large-scale exercises of its own, these could be increased in frequency and, potentially, in size, both of which are costly measures. Russia could also interpret these NATO exercises as representing an increase in effective NATO capabilities in the region and decide to increase its own military capabilities in response, either to combat the perceived threat from NATO or to attempt to maintain its current relative edge in local capabilities. The precise form that greater Russian military investments might take in response is difficult to predict and would likely be affected by a Russian operational analysis of the capabilities NATO had demonstrated, but the response could be substantial. If larger NATO exercises were successful in extending Russia in this manner, however, it would likely reflect increased Russian fears about a possible attack by NATO, which would carry substantial risks.

A NATO capability to deploy substantial forces to Russia's borders rapidly could represent a threat to Russia in at least three ways. First, large-scale, highly public military exercises, especially in Russia's near abroad, would represent a clear political challenge to a regime that has increasingly staked its legitimacy on the reestablishment of

Russia as a great power with a dominant role in that area. Second, greater NATO mobilization and reinforcement capabilities could signal a potential challenge to Russia's ability to intervene unopposed in neighboring states where Russia has vital interests, such as Ukraine, Belarus, and Georgia—especially if that is made explicit in the concept. Third, in much the same way that NATO worries about Russian exercises being used as cover or practice for a military attack on a NATO member, Russia could perceive large-scale NATO exercises as representing an intent and willingness by the Alliance to consider offensive operations against Russian territory in certain circumstances. These Russian concerns would likely be increased relative to the distance between its borders and the exercises, the scale of those exercises, and the level of offensive nature of the capabilities exercised. For example, a NATO exercise simulating a counterattack to retake NATO territory lost to advancing Russian forces might practice essentially the same capabilities as one designed to prepare for an invasion of a piece of Russian territory, such as Kaliningrad.

If Russia did perceive a clear threat to its security from large-scale NATO exercises, it could behave in a number of ways that could negatively affect U.S. and NATO interests. In the worst-case scenario, Russia could misperceive a NATO exercise as a prelude to war and decide to strike first. The 1983 Able Archer exercise demonstrates how an exercise practicing the steps that would precede the use of nuclear weapons and undertaken at a time of heightened tensions (in part due to the imminent deployment of intermediate-range Pershing II missiles to Europe) could create uncertainty in Russia regarding whether a NATO exercise were part of a first strike against its leadership.[48] Even if Russian intelligence were to reliably assess that these large-scale NATO exercises were never an immediate prelude to war, Russia could still opt to respond to the more general threat they represent by increasing its own posture on the borders of eastern-flank members of NATO or pursuing other means of cross-domain escalation. A fuller discussion

[48] Dmitry Dima Adamsky, "The 1983 Nuclear Crisis—Lessons for Deterrence Theory and Practice," *Journal of Strategic Studies*, Vol. 36, No. 1, 2013, pp. 26–30; Gordon Barrass, "Able Archer 83: What Were the Soviets Thinking?" *Survival*, Vol. 58, No. 6, 2016, pp. 19–21.

of possible Russian responses to a heightened threat perception from NATO is included in the previous section on possible NATO posture changes.

One potential risk that Russia could exacerbate deserves close consideration. The previous REFORGER exercises were ultimately scaled back and canceled not only because the Cold War ended but also because the exercises were locally unpopular. Large-scale operations involving heavy equipment, such as main battle tanks, inevitably involve substantial damage to private and public property and a heightened risk or rate of accidents involving civilians. These factors could undermine popular local support for NATO and its activities, and Russia would undoubtedly take steps to strengthen this negative perception of the exercises through its propaganda arms and other means of influence in NATO member states. The risk of undermining support for NATO in this manner would likely be greater in areas of higher population density, and where the perception of the necessity of the exercises was lower: For example, holding large-scale NATO exercises in densely populated Germany would likely involve greater political risks for Alliance support than in more sparsely populated Estonia or Latvia, where concerns over possible Russian aggression are also more acute.

Likelihood of Success

Undertaking larger and more-frequent military exercises in Europe, particularly with the participation of substantial U.S. forces that arrive from outside the continent, appears to be a viable means for NATO to increase Russian perceptions of Alliance capability and commitment to collective security. The location of the exercises and the capabilities they include present trade-offs for the Alliance between demonstrating the ability and resolve to defend potentially vulnerable eastern-flank members and threatening Russia in a manner that could produce an unwanted or precipitous reaction. NATO member support for these exercises is likely to be higher in countries that perceive a greater threat to their own territory from Russia, although large-scale participation from Western European NATO members that have greater military potential would arguably be the most beneficial for the Alliance if it

could be realized. Financial costs should be considered, as should the possibility that local damage created by these exercises could undermine popular support for NATO, but both issues are likely manageable. On balance, then, the potential for larger NATO exercises that are carefully designed to account for potential trade-offs to benefit the Alliance seems clear.

While the ability of these exercises to contribute to deterrence seems relatively straightforward, their ability to meaningfully extend Russia without adverse reactions might be more difficult to realize. Similar to increased forward posture on the Alliance's eastern flank, large-scale exercises, depending on how they are executed, do have the potential to increase the threat that Russia feels it faces from NATO and to prompt an increase in military spending or shifts in domestic posture in response. However, exercises that prompt Russia to take these steps might not contribute to the overall security of the Alliance. Heightened tensions and a greater risk of accidental or precipitous conflict with Russia might not be worth the marginal benefits of further extending Russian military spending in this manner, particularly to the extent that the deterrent value of these exercises can be realized without substantially increasing Russian perceptions of threat.

Measure 3: Withdraw from the INF Treaty

The INF Treaty was signed in 1987 at the pinnacle of arms control efforts between the United States and the Soviet Union late in the Cold War.[49] The treaty pledges the parties to eliminate from their arsenals all land-based missiles with maximum ranges between 500 km and 5,500 km, as well as their launchers.[50] Both sides feared that missiles in this range were destabilizing, allowing rapid strikes on London or Moscow while providing leaders with only minutes to decide whether

[49] For an overview of the historical context, see Ulrich Kühn and Anna Péczeli, "Russia, NATO, and the INF Treaty," *Strategic Studies Quarterly*, Spring 2017.

[50] United States of America and the Union of Soviet Socialist Republics, 1987.

to massively retaliate.[51] The Soviets were first to introduce intermediate-range missiles in Europe in the late 1970s, leading to acute concerns within NATO and European countries that missiles launched from Soviet territory could be used to attack targets in Europe with little warning.[52] Lacking its own intermediate-range missiles in Europe, the United States would be left with a choice between not responding in kind or retaliating with long-range missiles launched from its own soil, which could result in a Soviet counterstrike. Europeans feared that, in a crisis, the United States might not "actually trade 'New York for Bonn.'"[53] Conversely, once intermediate-range U.S. missiles, such as Pershing II, were introduced into Europe in 1983, Soviet leaders became more motivated to reach a negotiated agreement over the weapons, perhaps concerned that these missiles could be used to execute rapid "decapitation" strikes on Soviet leadership and command and control systems.[54]

The INF Treaty successfully eliminated 2,692 missiles (1,846 from the Soviet arsenal and 846 from the U.S. one) and became a cornerstone of the post–Cold War U.S.-Russian arms control architecture.[55] While unusual in its scope (banning an entire class of weapons from the arsenals of the two parties), the treaty was also limited in two important ways. First, it addresses only land-based missiles and launchers; intermediate-range missiles launched from sea or air platforms are not affected. Second, the treaty was bilateral, covering only the United States and the Soviet Union and its successor, Russia. Other important states, such as China, are not parties to the treaty, potentially putting both the United States and Russia at a relative disadvantage.[56]

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[51] Woolf, 2017c.

[52] Woolf, 2017c, p. 5.

[53] Woolf, 2017c, p. 5.

[54] Woolf, 2017c, p. 28.

[55] Kühn and Péczeli, 2017, p. 70.

[56] For the United States, at least, the first limitation cuts against the second limitation because of the substantial number of U.S. sea- and air-based launch platforms for intermediate-range missiles. For a discussion of the potential concerns about the effects of the INF

For years, some domestic critics have called for the United States to pull out of the INF Treaty and reconstitute an intermediate-range ground-based missile capability, on the grounds that the treaty's restrictions hamper U.S. abilities to deter other actors that have or might develop intermediate-range missiles, such as China, Iran, or North Korea.[57] Since the sharp decline in relations with Russia following the invasion and annexation of Crimea in 2014, these calls have grown louder, particularly following public revelations that Russia might be violating the INF Treaty by apparently developing, and even deploying, a new class of intermediate-range ground-launched cruise missile (GLCM).[58] With Russia already possibly cheating on the INF Treaty, it is worth considering whether the United States might be able to extend Russia by abandoning the treaty and requiring Russia to adapt to the reintroduction of land-based intermediate-range missiles into the U.S. arsenal.

Potential Benefits, Risks, and Likelihood of Success

There are several different variations of this policy measure that are worth assessing. First, the United States could engage in R&D of a new class of intermediate-range GLCMs without actually deploying such weapons, thus signaling to Moscow that it was considering abandoning the INF Treaty while remaining in compliance. Second, the United States could withdraw from the treaty and develop and field intermediate-range land-based missiles but not deploy them to the European theater. Third, the United States could withdraw from the treaty and deploy previously prohibited intermediate-range missiles

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Treaty on the U.S. strategic situation compared with China, see Jacob Heim, *Missiles for Asia? The Need for Operational Analysis of U.S. Theater Ballistic Missiles in the Pacific*, Santa Monica, Calif.: RAND Corporation, RR-945-A, 2016.

57 John R. Bolton and Paula A. DeSutter, "A Cold War Missile Treaty That's Doing Us Harm," *Wall Street Journal*, August 15, 2011.

58 Michael R. Gordon, "Russia Deploys Missile, Violating Treaty and Challenging Trump," *New York Times*, February 14, 2017a. Also see U.S. Department of State, *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*, Washington, D.C., July 2014.

in Europe.[59] These missiles could also be deployed in various ways—based in Eastern or Western Europe, restricted to conventional payloads only or with the potential to carry nuclear warheads. While these different options do have some benefits and risks in common regarding to the potential to extend Russia, there are also important differences, so we will consider each in turn.

Before we do so, however, two points of background information will be helpful in grounding the analysis. First, it is important to understand the strategic geography. Figure 8.2 shows the approximate maximum range of short-range land-based missiles fired from Russian territory as permitted under the INF Treaty.

When the INF Treaty was negotiated near the end of the Cold War, the Soviet Union could base short-range missiles farther for-

Figure 8.2
Approximate Maximum Range of INF-Compliant Short-Range Missiles Fired from Russian Territory



NOTE: Red line indicates a 500 km radius from Russian territory.

[59] A potential fourth option, withdrawing from the INF Treaty formally without fielding any new weapon systems, is excluded on the grounds that it seems to be clearly the worst of all worlds: incurring substantial diplomatic costs without any strategic benefits—and, indeed, potential costs assuming that Russia would welcome the opportunity to unilaterally deploy these systems.

ward in Warsaw Pact member countries, which allowed rapid targeting of more locations throughout Western Europe, including the bulk of U.S. forces that were stationed in West Germany. After the end of the Cold War and the dissolution of the Warsaw Pact (and the accession of many former Pact members to NATO), the limits in the INF Treaty have placed more and more of NATO territory (including most major military capabilities outside of Poland) beyond the reach of short-range ground-launched Russian missiles. From the Russian perspective, then, the geography has grown less favorable because much of Eastern Europe has essentially switched sides in the geographic equation. The bulk of NATO forces today remain stationed outside the range of Russian short-range missiles while many key sites in Russia could be reached using short-range missiles stationed in Poland or the Baltic States.[60] This geography suggests that an INF Treaty respected by both parties has substantial benefits for NATO in Europe.

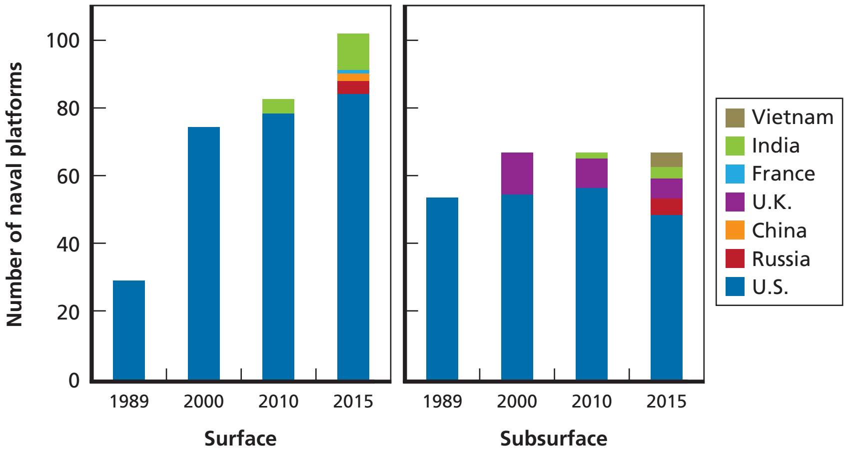
This relative favorability of the INF Treaty for NATO can also be seen in the second important piece of background information: the availability of alternative sea- and air-based launch platforms for intermediate-range missiles. Here, the United States enjoys a substantial advantage over Russia. Figure 8.3 shows the number of surface and subsurface naval platforms capable of firing LACMs that key states have possessed over time.[61]

As this figure shows, the United States and NATO have historically enjoyed a near monopoly over this capability. While this advantage has eroded in recent years, much of it has been because of advances in Asia. Through 2015, Russia continued to possess relatively few platforms with which to launch LACMs, lagging particularly in surface

[60] It should be noted that NATO does not base short-range ballistic missiles in the Baltic region, and if it were to do so, Russia would likely view the deployment as a highly escalatory step.

[61] Intermediate-range missiles could include either cruise missiles or ballistic missiles. At the present time, however, ballistic missiles deployed by the United States and Russia, such as Minuteman III or Trident II, have longer ranges. This section will therefore deal with the ability to launch intermediate-range cruise missiles.

Figure 8.3
Number of Naval Platforms Capable of Firing Land-Attack



SOURCE: IISS, *The Military Balance*, Vol. 116, No. 1, 2016, p. 26.

platforms.[62] This is in clear contrast with the massive investments it has made in short-range land-based missiles and artillery systems.[63] Air platforms capable of launching intermediate-range cruise missiles are more equitably distributed.[64] The United States and Russia have rough parity in the number of bombers able to launch intermediate-range LACMs.[65] The overall pattern is nonetheless clear: The United States and NATO are much more capable of launching intermediate-range

[62] It should be noted that while the United States has eliminated its ability to launch nuclear-armed LACMs from naval platforms, restricting itself now to conventional LACMs, a limited number of Russian naval platforms retain this nuclear capability. See Kristensen, 2012, pp. 53, 57.

[63] Shlapak and Johnson, 2016, pp. 5–6.

[64] It is worth noting that most sea and air platforms are also capable of launching nuclear weapons and are therefore controlled under the New START Treaty. See Amy F. Woolf, *The New START Treaty: Central Limits and Key Provisions*, Congressional Research Service, R41219, February 1, 2017a.

[65] IISS, 2016.

missiles from other platforms not prohibited by the INF Treaty than Russia is.[66]

Develop Missiles but Do Not Deploy Them

One option that the United States could pursue would be to develop new intermediate-range nuclear missiles but not actually deploy them. In early 2017, the INF Treaty Preservation Act was introduced in Congress with the stated intention of pursuing this goal.[67] R&D into new intermediate-range nuclear missiles is not a violation of the INF Treaty.[68] The 2017 legislation allocated $100 million in FY 2018 toward R&D of a U.S. ground-launched intermediate-range nuclear missile system and $400 million toward the development of defensive capabilities, such as missile defense systems designed to limit the effectiveness of Russian ground-launched intermediate-range nuclear missiles.[69] Progress toward development of a missile that the United States could make while remaining in compliance with the treaty would be quite limited. For example, even the fielding of a prototype system would likely constitute a treaty violation. The stated intent of

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[66] The disparity in launch platforms is largely driven by strategic and economic factors, although the New START Treaty does have some bearing on the issue. Under New START, the United States and Russia are each restricted to 700 deployed launchers capable of delivering strategic nuclear weapons. The majority of the launchers that the United States and Russia have chosen to count against their limits under the treaty—including ICBM silos, mobile launchers, and ballistic missile submarines—would not be used to launch LACMs or other intermediate-range missiles because doing so would detract from the state's strategic nuclear capabilities. A smaller number of strategic bombers capable of carrying nuclear weapons have been retained on both sides, and some of these bombers are capable of carrying LACMs. With regard to sea-launched intermediate-range cruise missiles, however, the United States has chosen to deploy these from submarines that are not capable of also carrying long-range ballistic missiles, meaning that they are not subject to the limitations on launch platforms in New START and do not count against the U.S. deployed launchers quota. See: Woolf, 2017a, pp. 20–21.

[67] Thomas Karako, "How to Stop Russia from Cheating on Missile Treaty," *The Hill*, February 28, 2017.

[68] United States of America and the Union of Soviet Socialist Republics, 1987.

[69] U.S. House of Representatives, House Resolution 1182, To Require Certain Actions Regarding Russian Federation Noncompliance with the INF Treaty, and for Other Purposes, February 16, 2017.

this policy is to demonstrate to Russia that the United States has the capacity to respond in kind to further INF Treaty violations, raise fears in Russia regarding what U.S. ground-launched intermediate-range nuclear missiles (presumably ballistic missiles, which would be less duplicative of current U.S. sea-launched intermediate-range nuclear cruise missile capabilities) could do if deployed, and thereby encourage Russia to return to compliance with the treaty.[70]

A potential benefit of such a policy is that it could extend Russia by encouraging heavier investment in expensive missile defenses or in hardening and distributing its own command and control systems to address fears that NATO intermediate-range nuclear ballistic missiles could be used in a decapitation strike. Russia currently has limited missile defense capabilities.[71] A new or expanded intermediate-range nuclear missile program is also potentially expensive, although the fact that Russia appears to have deployed such a missile and already invests heavily in its short-range nuclear missiles suggests that such a cost might be born willingly. A more-developed U.S. missile defense architecture in Europe—this time targeting Russian, rather than Iranian, capabilities—could also persuade Russia to invest in R&D of new systems designed to defeat these defenses.[72]

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[70] This roughly mirrors the U.S. strategy to convince the Soviet Union to agree to the INF Treaty in the first place. The Soviets initially enjoyed a clear advantage in intermediate-range missiles in Europe and resisted U.S. arguments that they were destabilizing and should be eliminated. It was not until after the United States introduced Pershing II ballistic missiles to Europe in 1983 that the Soviet position changed, although it should be noted that the change in leadership and policy of *perestroika* ("restructuring") might have improved Soviet willingness to conclude such agreements absent the demonstrated U.S. capability. (See Avis Bohlen, William Burns, Steven Pifer, and John Woodworth, *The Treaty on Intermediate-Range Nuclear Forces: History and Lessons Learned*, Washington, D.C.: Brookings Institution, Arms Control Series, Paper 9, December 2012.) Ballistic missiles reach their target much more quickly than cruise missiles and are therefore more potentially worrisome for crisis stability.

[71] Sean O'Connor, "Russia Upgrades Its Missile Arsenal," *Jane's Intelligence Review*, 2015, pp. 6–8; Leonid Nersisyan, "America vs. Russia: Will Missile Defense Help in a Global Nuclear War?" *The National Interest*, October 20, 2016.

[72] It should be noted that Western analysts generally view such systems as incapable of defeating simultaneous strikes of the scale of which Russia is already capable.

The primary risk of such a policy is that Russia might not react to U.S. signals in the desired manner. Rather than returning to compliance with the INF Treaty, Russia might instead interpret U.S. R&D as a sign that the United States is preparing to unilaterally breach or withdraw from the treaty, the way it did in 2002 with the ABM Treaty.[73] U.S. assurances that it intends to develop new weapons but not deploy them as long as Russia alters its behavior simply might not be credible to the Russians—indeed, Russia already accuses the United States of at least preparing to breach the INF Treaty because of the possibility that Aegis Ashore sites could be rapidly modified to fire "Tomahawk" intermediate-range LACMs.[74]

Developing these new missiles would likely trigger a sharp Russian response, but it might not be the desired one of investing in costly missile defense capabilities. Russia could decide that developing an effective missile defense system is beyond its financial or technological means and instead invest in offensive or retaliatory capabilities for deterring a U.S. strike. This could mean Russia further expands its current breach of the INF Treaty while still refusing to publicly acknowledge that such a breach is occurring. Given the current U.S. advantages in conventional sea- or air-launched intermediate-range missiles, such moves by Russia would likely represent a deterioration of the strategic situation in Europe (from the U.S. perspective). How much more Russia could be induced to spend in response is somewhat unclear, although any substantial sum would likely come at the expense of other Russian defense priorities. After a long period of growth, the Russian military budget has plateaued and is scheduled to decline gradually over the next few years.[75] Russia is already making difficult choices regarding which new, expensive systems it will develop and field, including next-generation tanks and stealth fighters, so additional expenditures on

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73 Terence Neilan, "Bush Pulls Out of ABM Treaty; Putin Calls Move a Mistake," *New York Times*, December 13, 2001.

74 Andrew E. Kramer, "Russia Calls New U.S. Missile Defense System a 'Direct Threat,'" *New York Times*, May 12, 2016a.

75 Kofman, 2017b.

missile systems might crowd out other spending, absent a reversal in the country's macroeconomic situation.[76]

The obstacles to U.S. implementation of this measure are primarily financial. The United States has previously fielded effective intermediate-range nuclear missiles like those that would need to be developed, such as Pershing II, so their redevelopment should pose few technological challenges. Such a program would be expensive, however. The bill currently before Congress calls for spending $100 million, but this is presumably a down payment.[77] Other obstacles are likely not as challenging. European NATO allies are likely to oppose moves by the United States to abrogate the INF Treaty, but developing new weapons with the intent of strengthening the INF regime would likely receive less concerted opposition and could be executed without allied approval in any event.

Withdraw from the Treaty but Do Not Deploy Missiles in Europe

The United States could also decide to formally withdraw from the INF Treaty, develop currently prohibited ground-based intermediate-range nuclear missiles, and then deploy them—but outside the European theater. Such a policy could be geared primarily toward deploying missiles in Asia, where such states as China are not bound by any INF limitations. However, additional missiles could also be kept in the continental United States and prepared for potential deployment to Europe, Asia, or the Pacific in the event of a crisis. Such a policy could allow the United States to address a potential capability gap in its arsenal with regard to other states while somewhat limiting the risk of creating a crisis or escalation with Russia.

The benefits of this policy with regard to extending Russia would likely be similar to those in the previous policy. U.S. possession of ground-based intermediate-range nuclear missiles would almost certainly prompt a Russian response, although it is unclear whether Russia would respond with investments in missile defense, its own intermediate-range nuclear missile program, or both. Such

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76 Kofman, 2017b.

77 U.S. House of Representatives, 2017.

investments are potentially costly and, in the case of expanded Russian missile defense, might take years before they resulted in a fully realized capability.

The risks of this policy are accentuated. A unilateral U.S. withdrawal from the INF Treaty and deployment of currently prohibited missiles, even if not deployed in Europe, would almost certainly prompt Russia to develop and deploy missiles of its own. This risks creating a strategic situation in Europe similar to that before Pershing II missiles were introduced, where NATO members were concerned that U.S. leaders might have only minutes to decide whether to respond to a Soviet intermediate-range nuclear launch on targets in Western Europe using the same missiles located in the region—and that, in such circumstances, stated guarantees of a U.S. nuclear response might not be fully credible.[78] At the same time, Russian concerns along these lines likely would not increase much, although it is important to note that existing Russian fears of systems (such as BMD or Prompt Global Strike) appear to be essentially along these lines. In addition, if the United States were to decide later to deploy intermediate-range missiles from the United States to Europe during a crisis, this would likely be seen as a highly escalatory step. On balance, then, this policy risks worsening the strategic situation in Europe for the United States and its allies. Diplomatically, the United States would bear the reputational and political costs of being the party to formally withdraw from the treaty, notwithstanding current Russian noncompliance (which appears to remain limited in scale, at least according to publicly available information).

The potential obstacles to implementing this measure are also largely similar to the policy previously discussed. The financial costs to both develop and deploy a new type of missile program are likely to be substantial, depending on the number the United States would decide to produce and the personnel required to operate and protect

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[78] European leaders feared that threats of U.S. retaliation using missiles launched from the United States in later retaliation would be less credible, as the Soviets could threaten nuclear retaliation against the U.S. homeland but promise to withhold doing so if no U.S. nuclear retaliation occurred from strikes on Western Europe.

the missiles in theater. However, this appears to be within both the financial and technological capabilities of the United States, given the anticipated increase in defense spending planned under the current administration. NATO allies in Europe are likely to strongly oppose unilateral U.S. withdrawal from the INF Treaty, with potentially serious diplomatic repercussions. These concerns at the government level might be heightened if U.S. missiles do not return to match new Russian capabilities, though it should be noted that there is likely to be substantial public opposition to the redeployment of such missiles to Western Europe. The United States is capable of implementing this policy without allied approval, although a stated allied refusal to host intermediate-range nuclear missiles would diminish the resultant pressure on Russia.

Withdraw from the Treaty and Deploy Missiles in Europe

The United States could formally withdraw from the INF Treaty, develop and deploy ground-based intermediate-range nuclear missiles, and deploy those missiles in Western Europe. This would enable the United States to deploy ground-based nuclear missiles in more-secure locations that could still be used to target positions along NATO's eastern flank that are potential, or at least hypothetical, targets for Russian invasion.[79] More worryingly from the Russian perspective, the United States also could target locations inside Russia, enhancing the U.S. capability for a rapid strike on command and control systems or other strategic assets (although the United States already has air- and sea-launched missiles capable of such missions). This policy option could further enhance U.S. conventional capabilities to target Russian air defense assets that could hinder U.S. and NATO aircraft in the event of a crisis. Moreover, the deployment of missiles could send a strong signal that the United States intended to defend its NATO allies in Europe, including with nuclear weapons.

With regard to the potential benefits for extending Russia, deployment of such missiles in Western Europe would definitely

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[79] It should be noted, however, that even shorter-range missiles based in Poland could still cover most of the territory of Estonia, Latvia, and Lithuania and be of substantial value in a conventional conflict in those states.

get Moscow's attention. Russia remains highly concerned about the potential for such decapitation strikes with the INF Treaty in place, given U.S. sea- and air-launched intermediate-range missile capabilities, as well as the potential for Aegis Ashore missile defense sites to be altered to fire GLCMs.[80] Those concerns would spike in the event of the return of U.S. intermediate-range nuclear missiles to Western Europe, particularly if they preceded the deployment of any substantial Russian intermediate-range nuclear missile capabilities, and could even be interpreted as a prelude to NATO aggression against Russia. This would almost certainly prompt a Russian response, potentially involving substantial resources, or at least the diversion of substantial resources from other defense spending, though it is difficult to assess what share would be directed toward defensive capabilities rather than offensive or retaliatory ones. It is worth noting that numbers of nonstrategic nuclear weapons and launch platforms specific to their delivery are not constrained by New START, and that Russia likely retains vastly more such operational weapons than does the United States, with the potential to rapidly deploy more.[81]

This spike in Russian fears would also produce substantial strategic risks. Given the current state of U.S.-Russia relations, the deployment of such missiles to Europe could increase the risk of a crisis or misperception by Russia that the United States intended to undertake a first strike against Russian command and control systems, including leadership, that could in turn prompt destabilizing Russian reactions.[82] Furthermore, while this policy would improve U.S. capabilities to launch intermediate-range nuclear missiles and strike additional targets, it would likely lead to a relatively greater increase in Russian capabilities because Russian alternative sea- and air-launched platforms are more limited. The United States would also bear the substantial diplomatic costs of having unilaterally withdrawn from both the ABM and the INF Treaties (perhaps making future arms control treaties more difficult to conclude), as well as the political and reputational costs,

[80] Kramer, 2016a.

[81] Kristensen, 2012, p. 52.

[82] Heim, 2016, p. 3.

including from close allies, for potentially escalating the risk of war in Europe.

The United States has the capabilities and resources to develop and deploy ground-based intermediate-range nuclear missiles on its own and can withdraw from the INF Treaty if it chooses. Basing missiles in Europe, however, would require the consent of the allies and partners where such missiles would be based, and this might be difficult to achieve. In the 1980s, there were large-scale protests over the introduction of Pershing II missiles into Europe, and Western European governments were reluctant to host these missiles even when faced with a more geographically proximate and extensive Soviet military threat.[83] While much might depend on the context in which such missiles were reintroduced, it seems prudent to assume that securing host-nation support for these deployments would be challenging.

Two other alternative versions of this policy option are worth discussing separately. First, the United States could deploy intermediate-range missiles, including those that are nuclear-capable, on the territory of NATO allies in Eastern Europe, such as Poland, rather than or in addition to locations in Western Europe. In some ways, this would mirror the deployment of Pershing II missiles to Western Europe in the mid-1980s, intended to assure both the Soviet Union and NATO allies that an attack on NATO would be met with a nuclear response. This time, however, the deployment would take place directly on the borders of Russia. In principle, the deployment of such missiles would send a strong signal that the United States was willing to use nuclear weapons in defense of NATO's eastern-flank members, with the potential to enhance U.S. deterrent efforts. Such a move would also be tremendously threatening to Russia, however, because of the proximity and short flight time of the missiles to Moscow. Russian concerns about purely conventional U.S. sea- or air-launched precision strike systems' ability to execute regime decapitation strikes would likely be magnified several times. This could help deter a Russian attack on NATO territory, but it could also prompt

[83] Woolf, 2017c, pp. 9–10.

one. If the United States were to indicate that deployment was in progress to such countries as Poland or the Baltic States, Russia might consider attacking those states to head off any such deployment or dramatically escalating tensions in other areas to deter the United States from following through with the deployment.

In the second alternative version of this policy, the United States could develop intermediate-range missiles and deploy them to Europe but do so in such a manner that Russia would know the missiles could carry only a conventional payload.[84] This policy alternative would involve fewer risks and fewer benefits than those outlined here. Purely conventional intermediate-range missiles would do less to signal U.S. resolve to defend NATO allies, though they could still be useful for a number of conventional combat scenarios in Europe. They would also be much less escalatory than missiles with the potential to carry nuclear weapons, however, and would therefore increase Russian concerns over decapitation strikes only by a degree. Developing a conventional-only missile program also might be costlier if the United States also intended to develop a nuclear-capable variant for deployment to other theaters. The different variants would need to be clearly distinguishable from one another, including in the launchers they employed, in order to avoid triggering the greater risk of a precipitous Russian reaction.

Recommendations

At least in the European theater, an effective, respected INF Treaty is in the interests of the United States. The treaty has helped to limit the risk of nuclear escalation in Europe and has a relatively smaller constraining effect on U.S. conventional capabilities than it does on the conventional capabilities of Russia. Furthermore, the ability to extend Russia by withdrawing from the treaty appears either limited or accompanied by substantial risks to U.S. interests. U.S. policies that would undermine or eliminate the INF Treaty would therefore need to be motivated by one of two concerns.

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[84] This would be similar to U.S. decisions to carry sea-launched conventional cruise missiles only on separate submarines from those that carry sea-launched nuclear ballistic missiles.

First, the United States could conclude that broader strategic concerns, including those in Asia, require the United States to withdraw from the treaty (to which only itself and Russia are bound) and reconstitute its own intermediate-range missile capabilities. Analysts appear divided on this question with respect to China, and addressing this debate lies outside the scope of this report.[85] Second, based on published reports of current Russian violations, the United States could conclude that the treaty is no longer exercising any restraining influence, and it is worth trading the political and diplomatic costs of formally withdrawing from the treaty first in order not to be unilaterally constrained by it.

As of this writing, and despite public reports of Russian violations of the treaty, this second cause for concern does not appear likely to occur. While Russia is apparently taking steps to develop intermediate-range missile capabilities, its deployment of these systems seems to remain limited. Russia's treaty obligations and the threat of U.S. development of similar capabilities appear to be exercising a restraining effect on Russian behavior. This being the case, U.S. withdrawal from the treaty does not seem advisable at this time, especially considering the potential risks to strategic stability in Europe that such a move could bring. Continued unilateral U.S. compliance with the INF Treaty could also strengthen U.S. efforts to expand the treaty to cover other states, such as China, as well as other U.S. arms control efforts.

A more complex question is whether investing in the development of U.S. intermediate-range missiles in order to prompt Russia to return to compliance with the INF Treaty would be effective or advisable. If the United States could credibly signal to Russia that it would abandon such a development program—halting spending and ultimately

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[85] See, for example, Heim, 2016; Evan Braden Montgomery, "China's Missile Forces Are Growing: Is It Time to Modify the INF Treaty?" *The National Interest*, July 2, 2014; Jim Thomas, "Why the U.S. Army Needs Missiles: A New Mission to Save the Service," *Foreign Affairs*, May–June 2013; David W. Kearn, Jr., *Facing the Missile Challenge: U.S. Strategy and the Future of the INF Treaty*, Santa Monica, Calif.: RAND Corporation, MG-1181-TSF, 2012; Mark Stokes and Dan Blumenthal, "Can a Treaty Contain China's Missiles?" *Washington Post*, January 2, 2011.

not deploying any missiles—in the event that Russia returned to full compliance with the INF Treaty, then such investments could increase U.S. leverage over Russia and encourage compliance with the treaty. On the other hand, if such a program were perceived solely as a drive toward the redevelopment of such a U.S. capability, the opposite effect would likely occur, hastening the disintegration of the treaty regime. A development program that is relatively transparent in its funding and time lines, clearly indicated in both U.S. official statements and authorizing legislation to be conditional on Russian behavior, and supported by NATO allies that are strong supporters of the existing INF Treaty would be most likely to lead Russia to return to compliance. A development program that lacked these characteristics might not be preferable to the status quo, which remains relatively favorable to U.S. interests in Europe even with limited Russian violations.

Measure 4: Invest in New Capabilities to Manipulate Russian Risk Perceptions

Russia's allocation of its defense spending, particularly its spending on modernization programs, is affected by its perception of the threats that it faces. Over the past decade, this modernization spending has been concentrated in a few areas, including Russia's nuclear force, air defense, and short-range missile capabilities that reflect Moscow's perception of the potential threats it faces from the strategic, air, and standoff capabilities of NATO and the United States.[86] Knowing that Russia allocates its defense investments based partly on perceptions of U.S. capabilities provides the United States with an opportunity to manipulate these perceptions as a means of altering Russian defense investments and extending Russia.

This manipulation of Russian perceptions could be based in reality, creating new capabilities to which Russia would feel compelled to respond, or in deception, signaling an intention to create new capabilities that might not be technologically feasible but might still inflate

[86] Kofman, 2017a.

Russian concerns and cause a shift in its defense spending. It has been argued that the SDI in the 1980s contributed to such an outcome during the Cold War, heightening Soviet fears that the United States might be able to counter the strategic nuclear deterrent on which Soviet security depended and prompting the Soviet Union to invest scarce resources at a time of economic difficulty in countering an overinflated perception of U.S. advancements.[87]

In this section, we will assess the potential for the United States to use similar advancements, deceptions, or a combination thereof to manipulate Russian defense spending in the current constrained Russian fiscal environment. In doing so, we will assess both evolutionary and revolutionary potential increases in U.S. capabilities. Even incremental improvements to existing U.S. weapon technologies (such as anti–air defense systems) could prompt changes in Russian defense investments, although these changes would likely be in rough proportion to the U.S. investments made as both sides make tit-for-tat changes to gain or maintain an advantage. However, we will also consider investments that could take longer to bear fruit but could lead to more-radical leaps in U.S. capabilities and disproportionate concerns on the part of the Russians.

This section surveys three avenues for U.S. investment in land or multidomain capabilities that appear to have the most promise for extending Russia in this manner: systems that could threaten or limit the utility of Russia's A2AD capabilities, systems that could threaten Russian heavy ground forces, and weapon systems based on more-novel emerging technologies, such as directed energy. While we identified these systems as the likeliest candidates to extend Russia, there are many other possibilities as well—some of which are covered elsewhere

[87] More-recent scholarship, however, suggests that this effect has likely been overstated, and that while U.S. investments in the SDI were a subject of intense interest by the Soviets, they never made substantial investments to try to compete with the United States in this area. See David E. Hoffman, "Missile Defense Didn't Win the Cold War," *Foreign Policy*, September 22, 2009; Pavel Podvig, "Did Star Wars Help End the Cold War? Soviet Response to the SDI Program," *Science & Global Security*, Vol. 25, No. 1, 2017.

in this report, such as hypersonic weapons.[88] We will briefly outline the types of specific weapon systems that could be pursued in each category, then assess the potential benefits, risks, and feasibility of each type of investment to extend Russia.

Develop Counter A2AD Systems and Long-Range Fires

Russia has invested heavily over the past two decades in long-range fires and air defense systems, such as the SA-21, that could allow Russia to deny U.S. and NATO air superiority in certain contexts and enable Russia to use fires with superior ranges to achieve early success on the battlefield.[89] While the United States could overcome this Russian advantage with existing capabilities given enough time, investing in new capabilities that would allow the United States to more rapidly degrade Russian A2AD systems could limit Russia's ability to achieve its goals on the ground, even in regions close to its borders, which in turn could undermine the political and strategic value of Russia's military modernization program.

There are several ways in which the United States might attempt to negate Russian anti-air capabilities. The United States has systems that can approach the range of the SA-21—such as the Joint Air-to-Surface Standoff Missile (a subsonic cruise missile)—but Russian radar detection capabilities are relatively advanced, so the time these missiles take to reach their targets from a long range would likely allow a Russian system sufficient warning to reposition itself and avoid the attack. The United States could employ munitions with

[88] One area that is not covered elsewhere in the report and that we do not discuss in detail here is cyber capabilities. While increasingly important for the battle space, cyber capabilities that could be used against military systems are also incredibly difficult to assess using publicly available information. Furthermore, they represent a difficult capability to develop to extend an adversary because foreknowledge about their potential capabilities could limit their utility.

[89] By contrast, Russia appears to have decided not to compete with the United States in the air-to-air domain. Russia's fifth-generation fighter, the Sukhoi T-50, will not be operational until 2018, and Russia is not producing many for its own use. Instead, the plane will mainly be produced in India, and India is currently demanding a technology transfer. See Dave Majumdar, "Long-Range Precision Fires (LRPF)," *The National Interest*, February 16, 2017; Rajat Pandit, "To Avoid Sukhoi 'Mistake,' India to Go for Russian 5th-Generation Fighter Only on Complete–Tech Transfer Pact," *Economic Times*, March 9, 2017.

wider areas of effect to negate this problem, although this is more difficult to accomplish because of U.S. pledges to abide by the provisions of the Cluster Munitions Treaty.[90] Even if effective in striking their targets, U.S. systems would need to reposition themselves quickly once they have launched their missiles in order to avoid being targeted by a Russian counterattack that could limit them to a single strike.

There are several areas in which the United States could invest to incrementally undermine Russian anti-air capabilities. Broadly speaking, these could focus on targeting Russian anti-air systems or defending against them or weakening their effectiveness. To target these Russian systems, the Army already has several programs in development that have the potential to provide improved long-range surface-to-surface fires, including improvements to ATACMS.[91] Greater investments to improve range, speed, area effectiveness, and mobility of launch platforms could shift the balance of capabilities in an exchange with Russian systems, although no single characteristic represents a silver bullet. Longer-range systems could help target Russian launch platforms with greater security, but they might remain limited in how quickly they can actually degrade Russian A2AD capabilities if they lack improvements in speed or area effectiveness of their munitions. MLRS battalions could be deployed near Kaliningrad to better target Russian air defense platforms. Programs to fire hypervelocity projectiles using electromagnetic rail gun technology and existing Howitzers could also be accelerated.[92] These projec-

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[90] The United States has not signed the Cluster Munitions Treaty. However, as of 2008, the U.S. Department of Defense will not use cluster munitions that "result in more than 1 percent unexploded ordnance (UXO) across the range of intended operational environments." U.S. Secretary of Defense, "DoD Policy on Cluster Munitions and Unintended Harm to Civilians," memorandum to secretaries of the military departments, Chairman of Joint Chiefs of Staff, Under Secretary of Defense for Acquisition, Technology and Logistics, Under Secretary of Defense for Policy Commanders of the Combatant Commands, and General Counsel of the Department of Defense, Washington, D.C., June 19, 2008.

[91] U.S. Army Acquisition Support Center, "Long-Range Precision Fires (LRPF)," undated-b.

[92] Kris Osborn, "The U.S. Army's Ultimate Super Big Gun (Firing 5,000 Mile Per Hour 'Bullets') Is Almost Here," *The National Interest*, January 3, 2017.

tiles can travel at more than three times the speed of existing munitions, allowing for faster targeting of Russian fires units and reducing the effectiveness of "shoot and scoot" artillery techniques. Although air-launched, the United States is also developing an extended range advanced anti-radiation guided missile (AARGM) that has the potential to strike Russian air defense systems at a greater distance and with greater effectiveness than existing systems.[93] The United States could also invest more heavily in the number of munitions it stockpiles, allowing operations to be sustained for a longer period of time, and in the number of sites from which those munitions could be launched, increasing the difficulty of avoiding U.S. strikes.

Another option would be for the United States to improve its defensive capabilities against Russian air-defense and long-range fires. The United States could invest in efforts to field the forthcoming Indirect Fire Protection Capability Increment 2 (IFPC2) system more quickly and in greater numbers, which could help provide short-range air, cruise missile, and counter-unmanned aircraft defense from Russian attack.[94] Further improvements to IFPC2 could also be made through these investments, including longer-range missiles. Relatively cost-effective investments in systems to jam Russian radars in Kaliningrad could also help degrade the effectiveness of Russian air defense, though deploying the jammers closer to Moscow could raise concerns regarding the security of Russian command and control systems. Whether offensive or defensive in nature, these investments could prompt Russia to invest further in its own missile systems to try to maintain or regain their current edge, though doing so would be costly. Failure to do so could risk ceding an uncontested

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[93] Jakub Palowski, "AARGM-ER—Anti-Radiation Missile for the 5th Generation Fighter Aircraft," Defence24, June 13, 3017; Robin Hughes, "Orbital ATK Firms Up AARGM ER Design Concept," *Jane's 360*, June 9, 2017.

[94] U.S. Army Acquisition Support Center, "Indirect Fire Protection Capability Increment 2—Intercept Block 1," undated-a.

air domain to U.S. and NATO forces in relatively short order in the event of a conflict.[95]

The second way in which the United States might seek to overcome existing Russian A2AD capabilities would be to invest in revolutionary capabilities, such as autonomous unmanned aircraft. Autonomous systems are those with an increased—potentially total—ability to operate independently of human direction. In principle, taking humans out of the equation enables dramatic increases in the speed and coordination with which such systems can operate; this, in turn, might enhance their lethality, scalability, and usability in certain conflict situations.[96] One possible investment that could undermine Russian anti-air capabilities would be in "swarm" capabilities for large numbers of autonomous, unmanned aircraft. The Department of Defense recently announced that it successfully released 103 microdrone swarms that "demonstrated advanced swarm behaviors such as collective decision making."[97] Swarms of autonomous aircraft have the potential to saturate Russian targeting systems, limiting the ability of these systems to target U.S. or NATO conventional aircraft or to deliver munitions of their own. Their ability to operate autonomously could allow them to be scaled dramatically, deploying dozens or even hundreds for a fraction of the cost of traditional, human-operated aircraft, while still engaging in complex evasion or even targeting behavior.[98] The United States, including the Strategic

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[95] Munitions with a wider area of effect might be particularly useful against softer targets, such as radars, that require less-concentrated fire to be adversely affected.

[96] Colin Roberts, "Killer Robots: Moral Concerns vs. Military Advantages," *The National Interest*, November 3, 2016.

[97] U.S. Department of Defense, "Department of Defense Announces Successful Micro-Drone Demonstration," Washington, D.C., press release No. NR-008-17, January 9, 2017.

[98] Taking humans out of the loop of targeting decisions is the most complex and controversial part of this research, with substantial implications for adherence to the Law of Armed Conflict. For example, see Bryan Frederick and David E. Johnson, *The Continued Evolution of U.S. Law of Armed Conflict Implementation: Implications for the U.S. Military*, Santa Monica, Calif.: RR-1122-OSD, 2015, pp. 51–55; David Smalley, "LOCUST: Autonomous, Swarming UAVs Fly into the Future," Office of Naval Research, April 14, 2015. However, final targeting decisions could continue to be approved by a human while still allowing for the other benefits of autonomous swarms, such as scalability and automatic maneuver.

Capabilities Office at the Pentagon, has been developing this capability for some years.[99] The United States could announce expansions to those investments or the achievement of successful milestones in testing to enhance Russian concerns regarding these capabilities and to prompt counterinvestments.

Counter Russian Ground Forces

Russia's military advantages near its borders generally stem from its local superiority in heavy ground forces. In the event of a conflict or an effort to deter a conflict, the United States could threaten this Russian advantage in ground capabilities through the application of superior U.S. and NATO air power,[100] or it could invest in its own ground-based capabilities that could undermine Russian advantages in such areas as mechanized armor. Currently, Russian capabilities allow it to quickly use armor and an overmatch in fires to gain a substantial advantage.

Russian fires and armor units generally outnumber and outrange the capabilities of similar U.S. units. Russian fires capabilities have been matched with cheaper armor modernization investments, such as the T-72B3, and lower-density and more-expensive investments, such as the T-90 and T-14.[101] This could allow Russia to outmatch and overwhelm comparable NATO ground forces in engagements where NATO air power is unable to have a substantial effect.

There are several investments the United States could make to undermine this Russian advantage. First, it could invest to expand the capabilities and capacity of its own long-range fires. This is an area where there are current investments; for example, programs to further

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[99] Shawn Snow, "Pentagon Successfully Tests World's Largest Micro-Drone Swarm," *Military Times*, January 9, 2017; Laboratory for Autonomous Systems Research, "Swarm Control Using Physicomimetics," undated.

[100] The previous section deals with efforts to degrade Russian attempts to limit the utility of the U.S. air advantage.

[101] Dave Majumdar, "Russia's Armata T-14 Tank Could Be Super Dangerous on the Battlefield (But There Is One Simple Problem)," *The National Interest*, November 7, 2016b; Brendan McGarry, "These Foreign Tanks Now Match the M1 Abrams, US General Says," *Defense Tech*, March 28, 2017.

develop long-range precision fires for the MLRS can provide fires up to 500 km.[102] Second, R&D into an advanced anti-tank missile to upgrade the Javelin might provide an inexpensive way to undermine Russian armor capabilities and increase the usefulness of light infantry in a conflict with Russia. It is uncertain whether the current Javelin can defeat Russian T-90s and T-14s, many of which have been upgraded to counter Javelins.[103] Potential upgrades could focus on extending missile range, increasing missile ability to defeat advanced active armor protection systems, and enhancing launcher mobility, increasing the survivability of the lighter forces firing them.[104] The costs involved likely would not be dramatic; in 2015, an upgrade program with a multipurpose warhead that increased lethality against personnel cost $4.1 million in R&D and $77.7 million for procurement of 338 weapons.[105] An additional means of undermining Russia's edge in heavy forces would, of course, be to deploy more U.S. or NATO armor forces in Europe and on the Alliance's eastern flank. While the T-14 and T-90A are capable tanks, the M1 Abrams is an equivalent system.[106]

An investment the United States could make to produce a more revolutionary increase in its ability to counter heavy Russian forces would be in semiautonomous—and, eventually, fully autonomous—armored vehicles. Such vehicles could be deployed on their own, but they could also be integrated with existing light infantry and motorized infantry units.[107] An unmanned armored vehicle could offer advances

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[102] Kyle Mizokami, "The Army Is Getting a New Long-Range Tactical Missile," *Popular Mechanics*, June 16, 2017.

[103] Sebastien Roblin, "Javelin: The American Military's Ultimate Tank Killer," *The National Interest*, October 1, 2016.

[104] Roblin, 2016.

[105] Defense Comptroller, *FY 2015 Program Acquisition Costs by Weapon System: Javelin Advanced Anti-Tank Weapon*, Washington, D.C.: U.S. Department of Defense, March 2014.

[106] Dave Majumdar, "Russia's Armata T-14 Tank vs. America's M-1 Abrams: Who Wins?" *The National Interest*, September 11, 2016a; McGarry, 2017.

[107] The Army Science Board recently showed a concept for integrating robotic and autonomous systems into the current force. Army Science Board, "Robotic and Autonomous Sys-

in increasing survivability and lethality relative to the vehicle's overall weight. Without the requirement for a crew, unmanned vehicles could be lighter and smaller, increasing their speed and maneuverability while maintaining the lethality of larger, traditional systems, such as the M1 Abrams.[108]

These unmanned vehicles could be linked into current formation and remotely controlled by command and control vehicles. While vehicles that can operate autonomously are still being developed, remote control over these vehicles by human operators is a mature technology.[109] In the future, a group of largely autonomous tanks would have increased range and lethality in relation to their weight (and, therefore, their speed and maneuverability) and to other advanced armored vehicles manned by human crews.[110]

Moving toward greater autonomy in unmanned armored vehicles would mainly involve advancements in software, as well as the design and production of the vehicles themselves. The autonomous capabilities of the vehicles that such a program would pursue need not be particularly transparent and could be integrated into a deception plan and used to undermine any Russian belief that its mechanized forces have a relative advantage over U.S. or NATO forces. This could prompt Russia to invest further in its ground forces. Russia is not buying a large number of T-14s at the moment because they are costly and Russia has other defense spending priorities.[111] The possibility that the United States could be developing unmanned armored vehicles that are quickly deployable and have lethality and mobility advantages over manned armored vehicles could push Russia to reconsider this prioritization and either crowd out investment in other capabilities or expand its defense spending. It could

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tems (RAS) Study," November 9, 2016.

[108] Army Science Board, 2016.

[109] Army Science Board, 2016.

[110] Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies*, Oxford, UK: Oxford University Press, 2014, pp. 71–75.

[111] Majumdar, 2016b; Franz-Stephan Gady, "Russia's Military to Receive 100 New T-14 Armata Battle Tanks," *The Diplomat*, September 14, 2016.

also encourage Russia to attempt to match a U.S. developmental program for unmanned or autonomous tanks, which would require even more-substantial resources.

Develop Weapons Based on Emerging Technologies

The 2014 Russian Military Doctrine identifies a number of emerging technologies that Russia considers characteristic of modern warfare.[112] It has invested substantially in these technologies but is also concerned about potential U.S. advancements.[113] Some of these technologies, such as precision strike, are well established; others, such as unmanned or autonomous vehicles, are discussed in Chapter Six. This section highlights additional weapon systems based on what Russians often refer to as "new physical principles," or nontraditional weapons—including directed energy, electromagnetic, geophysical, genetic, and radiological weapons that could represent a substantial concern for Russian strategists. If deployed in substantial numbers, some of these weapons could have disproportionate conventional effects or allow the United States to threaten Russian leadership, nuclear systems, or command and control systems.

The United States has a number of existing R&D programs for weapons based on directed-energy, or laser, technology.[114] The prom-

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[112] Stephen Blank, *Russia and the Next RMA*, Washington, D.C.: American Foreign Policy Council, October 2016, p. 2.

[113] Blank, 2016, pp. 3, 9.

[114] David Vergun, "Laser Weapons Development by 2023," U.S. Army News Service, February 25, 2016. There are several additional types of weapons-based research that could be explored. One area that is often considered in this category—hypersonic vehicles and missiles—is discussed elsewhere in this report. Nonlethal—or, perhaps, more accurately, less-lethal—weapons are another focus of several ongoing U.S. military development programs. The already constructed Active Denial System uses millimeter wave beams to create an intense burning sensation on the skin of those affected. Acoustic weapons, such as the Distributed Sound and Light Array, can induce wide-area loss of concentration, discomfort, and nausea. However, these systems are likely to remain short-range weapons, with their effects focused on personnel, and are intended to affect primarily lightly armed troops or civilian populations. Additional weapons that could involve genetic targeting or atmospheric or geologic disruptions are farther out on the horizon and could involve tremendous risks that are not yet properly understood. For these reasons, this section focuses on directed-energy weapons. For reference to some of these other research programs, see U.S. Depart-

ise of directed-energy weapons is that they can strike fast-moving targets, such as missiles or airplanes, faster and more accurately than existing conventional systems without the same ammunition constraints as magazine-fed weapons and with the potential to completely undermine the effectiveness of existing adversary air or missile systems. Directed-energy weapons can be fired only in a straight line, so weapons based on the ground or at sea cannot target adversary ground assets, although those that are air-mounted might be able to do so.[115] Relatively low-powered systems, such as the 30-kw system currently deployed on the USS *Ponce*, are capable of shooting down light unmanned aircraft systems, but higher-powered weapons (more than 100 kw) would likely need to be deployed to threaten most adversary missiles or aircraft.[116] If fielded in sufficient numbers, high-powered lasers could substantially undermine existing Russian capabilities, such as cruise missiles. Moreover, given the speed of fire of directed-energy systems and the fact that they do not require separate munitions, they would be more difficult to defeat by saturation or the scaling up of existing conventional missiles. Given the challenges that such systems would pose to Russia, greater U.S. investments or announcements of successful tests of higher-powered systems would likely prompt Russia to reconsider its own defense investments. In order to reestablish an A2AD capability as effective as they have now, Russia would likely need to undertake substantial investments into new capabilities.

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ment of Defense, Non-Lethal Weapons Program, "Active Denial Technology," undated-a; U.S. Department of Defense, Non-Lethal Weapons Program, "Distributed Sound and Light Array," undated-b.

[115] Over the long term, air-mounted weapons also might provide the capability to strike ground-based targets from greater distances, though their inability to fire over the horizon means that such systems would need to be higher up, possibly in space, which is prohibited by treaty. See Sydney J. Freedberg, Jr., "Laser Fighters: 100kW Weapons by 2022," *Breaking Defense*, May 18, 2015.

[116] Jon Skillings, "Laser Weapons See Some Light Progress," CNET, March 18, 2017; Mark Gunzinger and Chris Dougherty, *Changing the Game: The Promise of Directed-Energy Weapons*, Washington, D.C.: Center for Strategic and Budgetary Assessments, April 19, 2012; Robbin Laird, "U.S. Navy on the Cutting Edge of Directed Energy Weapons," *Real Clear Defense*, July 17, 2017.

Finally, Russia might also feel the need to respond because of a general fear of falling behind the United States. In this sense, any U.S. investment in these new technologies might take on a disproportionate symbolic value that might help extend Russia.

Potential Benefits and Risks

Publicly and substantially investing in these capabilities has the potential to provide several benefits for the United States. First, the investments could result in increased U.S. capabilities that could be deployed to Europe. Even relatively limited improvements in such systems as IFPC2 or conventional fires or armor could have important implications for the military balance on NATO's eastern flank and contribute to the deterrence of Russia. More-revolutionary advancements, such as microdrone swarms, autonomous tanks, or high-output directed-energy weapons, have the potential to reshape the strategic situation more fundamentally, undermining Russian A2AD capabilities and effectively creating a "Third Offset" that would allow U.S. forces greater freedom of operation and effectiveness.

While more-limited investments in evolutionary missile or air capabilities would likely be met by relatively limited Russian reactions (as would investments to improve U.S. armored forces), substantial investments in capabilities with the potential to undermine the effectiveness of Russian missile systems in particular are not something Russia could afford to ignore. The Russian response could include greater investments in larger numbers of missile systems, improvements in their capabilities, or potentially expensive research programs into other methods of negating new U.S. capabilities. While deployable U.S. systems would likely cause the greatest reaction, even substantial investments and demonstrations of emerging systems would likely produce some effect. This raises the possibility that, at least to a certain extent, the United States might be able to extend Russia by inflating the extent of the progress made on developing these new weapons.

While several of the weapon systems discussed here appear to be promising candidates for investments to extend Russia, the ones that are most effective in this regard also carry substantial risks. Russia's

A2AD capabilities are not only a means of projecting power and ensuring the freedom of movement and effectiveness of its ground forces. They are also a vital component of Russia's efforts to safeguard its strategic and command and control systems. Truly revolutionary U.S. capabilities able to substantially undermine the effectiveness of these systems—such as air-based directed-energy weapons; hypersonic conventional munitions; or large, autonomous drone swarms—could leave Russia feeling exposed, perhaps with a perception that it is unable to defend itself against a U.S. first strike, even one limited to conventional weapons. While this would doubtless prompt changes in Russian military spending in an attempt to restore the previous strategic balance, it could also threaten Russian security to an extent that leadership might consider an attack to forestall the deployment of such capabilities near its borders, or it might consider other destabilizing actions, such as adopting launch-on-warning doctrines or distributed command and control over nuclear weapon use. Finally, it is possible that Russian R&D might be able to counter whatever new U.S. weapon capabilities are developed. If the U.S. strategy here is partially based on a bluff and the United States exaggerates its own ability to develop such weapons, the United States could end up in a worse strategic position than where it started out.

Likelihood of Success

Research into emerging technologies always carries a high degree of uncertainty, particularly with regard to costs and time lines. Nonetheless, it seems likely that, absent a massive, national-level commitment on the part of the United States, many of the more revolutionary technologies discussed will not be deployed over at least the next five to seven years.[117] In the near term, therefore, investments in these capa-

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[117] Autonomous vehicles and drones might be an exception in this regard because substantial private-sector investment is increasing the speed with which these advancements would otherwise occur. Private-sector advancements are also likely to become available quickly to other states as well, however. Johana Bhuivan, "The Complete Timeline to Self-Driving Cars," *Recode*, May 16, 2016; Richard Viereckl, Dietmar Ahlemann, and Alex Koster, *Connected Car Report 2016: Opportunities, Risk, and Turmoil on the Road to Autonomous Vehicles*, Frankfurt: PwC, 2016.

bilities are capable of extending Russia to the extent that they signal a dedicated commitment to spend what it takes to field this capability eventually. If testing success or other development milestones could be plausibly embellished, Russia also might be induced to shift its spending in response. But effective deception operations surrounding multibillion-dollar development programs involving large numbers of both civilian and military personnel are likely to be difficult to execute, although some exaggeration regarding time lines and, above all, ambitions could be achieved.

Investments in more-limited and easily realizable capabilities—such as extending the range, speed, and area of effect of existing U.S. fires—could be projected more confidently to result in deployable improvements in a shorter period of time. Such improvements might not cause fundamental shifts in Russian defense spending, but they could lead to an incremental arms race over short-range missile capabilities between the two sides as Russia seeks to maintain its current position of relative advantage, at least in areas close to its borders. They could also, at least until Russia was able to respond, lead to noticeable improvements in the balance of capabilities in Eastern Europe. However, even these incremental improvements, if deployed at sufficient scale, could affect Russian perceptions of its own regime security and the threat that NATO might pose, so they should be deployed with care.

Recommendations

Extending Russia by investing in greater NATO ground capabilities is a difficult task. Russia's geography and local military advantages on its borders mean that it is less sensitive to potential threats to its ground forces and capabilities than to threats in other domains where it is more vulnerable. As summarized in Table 8.1, most policy options discussed in this chapter for increasing U.S. and NATO land forces in Europe and for increasing NATO exercises there have only a limited likelihood of extending Russia by prompting further Russian military investments.

Table 8.1
Findings for Land and Multidomain Measures

Measure	Benefits	Costs and Risks	Likelihood of Success
Increase U.S. and NATO land forces in Europe			
Increase U.S. forces in Europe	Medium	Medium	Medium
Increase European NATO member ground capabilities	High	Low	Low
Deploy large NATO forces on Russia's borders	Medium	High	Medium
Increase NATO exercises in Europe			
Employ large U.S. participation	Medium	Medium	Low
Initiate a mass mobilization of European NATO member forces	High	Medium	Low
Hold exercises on Russia's borders	Medium	High	Medium
Hold exercises practicing counterattack or offensive scenarios	Medium	High	High
Withdraw from the INF Treaty			
Fund missile development program without withdrawing	Low	Medium	Medium[a]
Withdraw and build missiles, but do not deploy to Europe	Low	Medium	High
Withdraw, build missiles, and deploy them to Europe	Medium	High	High
Invest in new capabilities to manipulate Russian risk perceptions			
Make incremental improvements in counter-A2AD capabilities (e.g., enhanced ATACMS, AARGM, IFPC2)	Medium	Medium	High
Invest in revolutionary, swarm counter-A2AD capabilities	High	High	High
Make incremental improvements in countering ground forces or fires (e.g., enhanced Javelin)	Low	Low	Low
Invest in revolutionary, unmanned ground forces or fires capabilities	Medium	Medium	Medium
Invest in weapons based on "new physical principles" (e.g., directed-energy counter–air defense weapons)	High	High	High

[a] To clarify, this policy measure option and the subsequent one would only "succeed" in extending Russia if they first failed at their intended purpose of convincing Russia to return to full compliance with the INF Treaty. In the event that Russia returned to compliance and did not deploy intermediate-range missiles, it would not be extended, although this would serve other U.S. policy priorities, such as enhancing strategic stability in Europe.

Several options that touch on other domains, such as the United States withdrawing from the INF Treaty and investing in capabilities to undermine the effectiveness of Russian A2AD systems, have a much higher likelihood of extending Russia. These policies touch on areas of acute sensitivity for Russian leaders and are likely to prompt a serious Russian response. However, these policies come with substantial risks for the United States and NATO: These policies are able to prompt a strong Russian response precisely because they threaten Russian regime security and command and control systems and, in doing so, also have the potential to undermine strategic stability and increase the risk of direct conflict. On balance, these strategies do not seem advisable in the current security environment.

There are, however, several policy options across the land and multidomain space with a more limited potential to extend Russia that could bring additional benefits for the United States and NATO. Increasing the capabilities of NATO ground forces in Europe—through a more substantial U.S. presence, higher readiness levels for European NATO forces, and more-frequent large-scale exercises—could enhance the Alliance's ability to deter Russia while making forces more available for contingencies outside Europe. Investing in counter–ground force technologies and even in intermediate-range missile systems to incentivize a Russian return to compliance with the INF Treaty could also provide military or strategic benefits with more-manageable risks. If postured and executed carefully, these policies need not substantially increase Russian perceptions of the threat that NATO represents to Russian territory and regime security, limiting Russia's incentive to extend itself further to counter these forces. However, prioritizing reductions in the risk of conflict between Russia and NATO over the potential to extend Russia by threatening its survival would be a prudent trade-off to make.

CHAPTER NINE

Conclusions

In any competition with the United States, Russia's greatest vulnerability is its economy, which is comparatively small and highly dependent on energy exports. Russian leadership's greatest anxiety is for the stability and durability of the regime.

Russia's greatest strengths are in the military and information warfare realms. Russia has deployed advanced air defense, artillery, and missile systems that greatly outrange U.S. and NATO air defense suppression and artillery counterbattery capabilities, potentially forcing U.S. ground forces to fight without air superiority and with inferior fire support. Russia has also matched new technology to old techniques of misinformation, subversion, and destabilization.

The most-promising measures to stress Russia are those that directly address these vulnerabilities, anxieties, and strengths, exploiting areas of weakness while undermining Russia's current advantages.

Continuing to expand U.S. energy production in all forms, including renewables, and encouraging other countries to do the same will maximize pressure on Russian export receipts and thus on national and defense budgets. Among the many measures looked at in this report, this one comes with the least cost or risk.

Sanctions can also limit Russia's economic potential. To be effective, however, these need to be multilateral, at a minimum involving the EU, which is Russia's largest customer and greatest source of technology and capital—larger in all these respects than the United States.

Russia's combination of internet-enhanced political espionage and information operations, coupled with its long experience in subversion

and propaganda, have created both a supplement to covert and overt military operations and an independent capacity to try to discredit and destabilize democratic political systems. Yet Russian leaders also harbor fears (probably exaggerated) of a U.S. capacity to undermine their system. Credibly threatening to do so could be an effective way of persuading Russia to scale back efforts in this domain. Questioning the legitimacy of the Russian regime, linking its standing at home and abroad to its domestic and international actions, and openly supporting democratic change probably will not shake the foundations of the Russian state but might be sufficient to secure a form of mutual détente in this realm of information warfare.

European governments have shown rising concern over Russian cyber-subversion. Indeed, this issue might foster European support for further sanctions on Moscow, perhaps even more than concern over Russian behavior in Ukraine or Syria.

It would be difficult to raise the costs to Moscow of its external military commitments because most of these are in small areas adjacent to Russia and populated with pro-Russian populations. Here, geography awards Russia escalation dominance, which means any effort to promote greater local resistance could meet a severe rebuff, costly to the United States in prestige and to its local allies in lives and land. Syria might have provided promising ground to promote local opposition to the Russian presence in 2015, but Syrian opposition forces have since been ground down by the regime and infiltrated by al Qaeda–affiliated extremists, making this an unattractive proposition. There are also severe costs to regional and even European stability in prolonging the Syrian civil war. Increasing U.S. arms and advice to the Ukrainian military is the most viable of the geopolitical alternatives considered, but any such effort would need to be carefully calibrated to avoid a much wider conflict.

Russia is not seeking parity with the United States across the military spectrum, so further U.S. advances in fields of existing superiority might occasion little Russian response. For instance, Russia is not going to challenge U.S. dominance of the world's oceans. Targeted measures focused on threatening the limited maritime access that Russia enjoys to the Arctic, Baltic, and Black seas, however, could lead

Russia to invest in costly and relatively ineffective countermeasures. Possible U.S. measures include more-frequent SSN patrolling near the Arctic bases and the deployment of land-based and/or air-launched anti-ship cruise missiles near the Black Sea coast.

Russia would likely feel compelled to match any increase in U.S. strategic nuclear capabilities. Entering such an arms race would be the riskiest of the measures examined in this report. Additionally, expanded U.S. BMD would probably cost the United States a good deal more than the likely response, an increase in the number of missiles and warheads, would cost Russia.

The other area where Russia has maintained parity and even achieved superiority is in air defense and long-range fires. Greater U.S. investment in longer-range air defense suppression, more-advanced EW, and new and longer-range sea- and air-launched cruise missiles, as well as more-exotic systems with comparable capabilities, would likely generate an expensive Russian response.

Basing additional U.S. ground forces in Europe would likely encourage a Russian force posture response, particularly if these forces were positioned close to Russia. The costs to the United States are likely to be higher than those to Russia, however, while increasing deployments near Russian borders would increase tensions, generate controversy among NATO members, and possibly provoke Russian reactions elsewhere.

The demise of the INF Treaty would be of greater benefit to Russia than to NATO because of the great advantage the United States holds in sea-launched cruise missiles of comparable range, which are not constrained by the treaty. Russian violations of the treaty might cause the United States to withdraw, which might be advantageous vis-à-vis China, but deploying a new generation of INF missiles in Europe would be expensive, politically challenging, and potentially destabilizing. Finally, the demise of the INF Treaty might also have harmful second-order effects for arms control regimes at large.

Most of the steps covered in this report are escalatory in some sense, and most would likely prompt some Russian counter-escalation (Table 9.1). In addition to the specific risks associated with each measure, therefore, there is additional risk attached to a generally intensified com-

Table 9.1
Extending Russia Summary of Findings

Measure	Benefits	Costs and Risks	Likelihood of Success
Economic			
Hinder petroleum exports	High	Low	High
Reduce natural gas exports and hinder pipelines	High	Medium	Medium
Impose sanctions	High	High	High
Reduce Russian influence in Central Asia	Low	Medium	Low
Enhance Russian brain drain	Low	Low	Low
Geopolitical			
Provide lethal aid to Ukraine	High	High	Medium
Increase support to the Syrian rebels	Medium	High	Low
Promote regime change in Belarus	High	High	Low
Exploit tensions in the South Caucasus	Low	Medium	Low
Reduce Russian influence in Central Asia			
Challenge Russian presence in Moldova	Low	Medium	Low
Ideological			
Expose the corruption in the Russian electoral system	Medium	High	Low
Diminish the perception that the regime is pursuing the public interest	Medium	High	Medium
Encourage protests and other nonviolent resistance	Medium	High	Low
Undermine Russia’s standing internationally	Medium	Medium	Medium
Air and space			
Change air and space force posture and operations			
Shift posture of bombers	Medium	Low	High
Shift posture of fighters	Medium	High	Low
Deploy additional tactical nuclear weapons in Europe	Low	High	High
Reorient BMD	Low	Medium	Low
Increase aerospace research and development			
Develop more low-observable aircraft	Medium	Medium	Medium
Develop autonomous aircraft or RPAs	Medium	Medium	High
Develop longer-range cruise missiles	High	Medium	High
Develop longer-range HARMs	High	Medium	High
Develop more-sophisticated EW	Medium	Low	Medium
Invest in CPGS	Medium	High	Medium
Develop space-based weapons	Medium	High	Low
Develop spaceplanes	Medium	High	Low/Medium
Invest in SmallSats	Medium	High	Low
Increase air and missile components of the nuclear triad			
Break out of nuclear arms control agreements	Medium	High	Low

Table 9.1—Continued

Measure	Benefits	Costs and Risks	Likelihood of Success
Maritime			
Increase U.S. and allied naval force posture and presence	Medium	Low	Medium
Increased naval R&D efforts	Medium	Medium	Medium
Shift nuclear posture toward SSBNs	Low	Low	Low
Check the Black Sea buildup	Medium	Medium	Medium
Land			
Increase U.S. and NATO land forces in Europe			
Increase U.S. forces in Europe	Medium	Medium	Medium
Increase European NATO member ground capabilities	High	Low	Low
Deploy large NATO forces on Russia's borders	Medium	High	Medium
Increase NATO exercises in Europe			
Employ large U.S. participation	Medium	Medium	Low
Initiate a mass mobilization of European NATO member forces	High	Medium	Low
Hold exercises held on Russia's borders	Medium	High	Medium
Hold exercises practicing counterattack or offensive scenarios	Medium	High	High
Multidomain			
Withdraw from the INF Treaty			
Fund missile development program without withdrawing	Low	Medium	Medium
Withdraw and build missiles, but do not deploy to Europe	Low	Medium	High
Withdraw, build missiles, and deploy them to Europe	Medium	High	High
Invest in new capabilities to manipulate Russian risk perceptions			
Make incremental improvements in counter-A2AD capabilities (e.g., enhanced ATACMS, AARGM, IFPC2)	Medium	Medium	High
Invest in revolutionary, swarm counter-A2AD capabilities	High	High	High
Make incremental improvements in counter–ground forces or fires (e.g., enhanced Javelin)	Low	Low	Low
Invest in revolutionary, unmanned ground forces or fires capabilities	Medium	Medium	Medium
Invest in weapons based on "new physical principles" (e.g., directed-energy counter–air defense weapons)	High	High	High

petition with a nuclear-armed adversary. Finally, although Russia will bear the cost of this increased competition less easily than the United States, both sides will have to divert national resources from other purposes. Extending Russia for its own sake is not a sufficient basis in most cases to consider the steps outlined here. Rather, these options need to be considered in the broader context of national policy based on defense, deterrence, and—where U.S. and Russian interests align—cooperation.

Implications and Recommendations for the Army

Ultimately, the task of "extending" Russia should not fall primarily to the U.S. Army or even the U.S. armed forces. Indeed, the most-promising ways to extend Russia—with the highest benefit, lowest risk, and greatest likelihood of success—probably fall in the economic and information domains rather in the military domain. Moreover, as this study has argued, Russia is not seeking military parity with the United States and might simply choose not to respond to some U.S. military actions (e.g., shifts in naval presence), while other U.S. military actions (e.g., posturing forces closer to Russia) could ultimately prove costlier to the United States than to Russia. Nonetheless, there are at least three major implications of this work for the U.S. Army.

First, the Army should rebuild its expertise on all things Russian, including foreign area officers, linguists, and intelligence analysts. If Russia does indeed pose a long-term threat, then the U.S. Army needs to develop the human capital to engage in this strategic competition.

Second, the Army should consider investing—and encouraging the other services to invest—more in the handful of capabilities (e.g., ATACMs, IFPC2, longer-range anti-air defense, and other systems designed to counter Russian A2AD capabilities) that could extend Russia. The U.S. Army also might consider spending some of its R&D resources on less mature, more futuristic systems (e.g., swarm unmanned aerial vehicles or remote ground vehicles). While these measures would likely be insufficient in and of themselves to extend Russia, they would benefit U.S. deterrence efforts and could augment a broader whole-of-government policy.

Third, even if the U.S. Army is not directly involved in "extending Russia" per se, it will play a key role in mitigating the consequences. As already mentioned, all the measures to extend Russia incur some degree of risk. As a result, enhancing U.S. deterrence posture in Europe and increasing U.S. military capabilities (e.g., an enhanced Javelin or active protective systems for Army vehicles) might need to go hand-in-hand with any move to extend Russia as a way of hedging against the possibility of tensions with Russia escalating into conflict.

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This report examines a range of possible means to extend Russia. As the 2018 *National Defense Strategy* recognized, the United States is currently locked in a great-power competition with Russia. This report seeks to define areas where the United States can compete to its own advantage. Drawing on quantitative and qualitative data from Western and Russian sources, this report examines Russia's economic, political, and military vulnerabilities and anxieties. It then analyzes potential policy options to exploit them—ideologically, economically, geopolitically, and militarily (including air and space, maritime, land, and multidomain options). After describing each measure, this report assesses the associated benefits, costs, and risks, as well as the likelihood that measure could be successfully implemented and actually extend Russia. Most of the steps covered in this report are in some sense escalatory, and most would likely prompt some Russian counter-escalation. Some of these policies, however, also might prompt adverse reactions from other U.S. adversaries—most notably, China—that could, in turn, stress the United States. Ultimately, this report concludes that the most attractive U.S. policy options to extend Russia—with the greatest benefits, highest likelihood of success, and least risk—are in the economic domain, featuring a combination of boosting U.S. energy production and sanctions, providing the latter are multilateral. In contrast, geopolitical measures to bait Russia into overextending itself and ideological measures to undermine the regime's stability carry significant risks. Finally, many military options—including force posture changes and development of new capabilities—could enhance U.S. deterrence and reassure U.S. allies, but only a few are likely to extend Russia, as Moscow is not seeking parity with the United States in most domains.

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